

CAROLINE 2000

A COMPREHENSIVE DEVELOPMENT PLAN

for

CAROLINE COUNTY, MARYLAND



1986

INCLUDES AMENDMENTS
1991, 1996, 1998, 2002,
2003 & 2005

CAROLINE 2000
A COMPREHENSIVE PLAN
for
CAROLINE COUNTY, MARYLAND

VOLUME I: ISSUES AND POLICIES

Prepared for:
CAROLINE COUNTY PLANNING COMMISSION
and
CAROLINE COUNTY COMMISSIONERS

Prepared by:
VITECH SERVICES
Denton, Maryland

May, 1986

CAROLINE COUNTY PLANNING COMMISSION

Philip E. Reed, Chairman
Dawson H. Carroll
Charles T. Dean, Sr.
D. Eugene Harris
Namon R. Palmer
Thomas R. Shipley
David F. Tribbett

COUNTY COMMISSIONERS OF CAROLINE COUNTY

Charles T. Dean, Sr., President
John S. LeGates
Lee Edward James

CAROLINE COUNTY PLANNING DEPARTMENT

Elizabeth A. Krempasky, Director of Planning
Tamala M. Holden, Administrative Assistant

CONSULTANT SERVICES

Alan Visintainer
Vitech Services

TABLE OF CONTENTS

	Page ----
VOLUME I: ISSUES AND POLICIES	
Transmittal Letter	I-1
Planning Commission Approval Resolution	I-2
County Commissioners' Ordinance Adoption	I-3
Section I-1: Introduction	I-4
A. Purpose of the Plan	I-5
B. Public Input	I-8
C. Overall Comprehensive Plan Goals	I-10
Section I-2: Summary of Important Trends and Issues	I-11
A. The People	I-12
B. The Economy	I-14
C. The Natural Resources	I-16
D. The Man-Made Environment	I-19
Section I-3: Comprehensive Plan Elements	I-22
A. Land Use Plan	I-23
Residential Land Use	I-24
Single-Family Residential & Subdivisions	I-25
Multi-Family Residential	I-29
Mobile Homes	I-31
Commercial Land Use	I-32
Industrial Land Use	I-36
B. Transportation Plan	I-38
C. Community Facility Plan	I-41
D. Chesapeake Bay Critical Area Program	I-44

E. Other Plan Elements	I-52
Comprehensive Water & Sewerage Plan	I-52
Solid Wastes Management Plan	I-52
Educational Facilities Master Plan	I-53
Overall Economic Development Program	I-53
Comprehensive Plan for Parks, Recreation and Open Space	I-53
Public Transportation Technical Study	I-54

VITECH SERVICES

May 14, 1986

Caroline County Planning Commission
Courthouse
Denton, Maryland

Gentlemen:

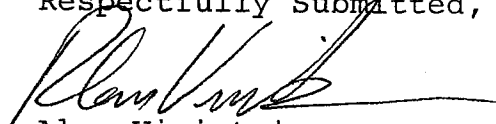
I am pleased to present to you the completed Caroline County Comprehensive Plan, ready for consideration and adoption.

This new Comprehensive Plan represents the culmination of a major effort on your part to prepare Caroline County to actively direct its future development, rather than relying on chance and luck to produce a desirable result. Your efforts to this end will continue as you carry this Plan through the final public input and adoption procedures.

Adoption of the Plan will be a beginning and not an end. The various policies recommended in the Plan will have to be implemented if the goals are to be achieved. This implementation procedure will be the true test of successful comprehensive planning for the future of Caroline County.

I have enjoyed working with each of you and the many citizens and officials who have provided information and comment during this long and complicated process.

Respectfully Submitted,



Alan Visintainer
VITECH SERVICES

ac:AV

PLANNING COMMISSION APPROVAL RESOLUTION

WHEREAS, it is the power and duty of the Planning Commission under Article 66B of the Annotated Code of Maryland to make and approve a Comprehensive Plan which shall be recommended to the County Commissioners for adoption; and

WHEREAS, the Planning Commission has prepared a new Comprehensive Plan which meets the requirements of Article 66B and contains the required elements; and

WHEREAS, the Planning Commission has held at least one duly noticed public hearing on the proposed Plan.

NOW, THEREFORE, BE IT HEREBY ENACTED AND ORDAINED THAT:

1. The Comprehensive Plan and the Land Use Plan Map are hereby approved and recommended to the County Commissioners for adoption; and
2. The Comprehensive Plan adopted in 1968 and all amendments thereto is hereby repealed; and
3. This Resolution shall be effective immediately upon adoption.

PASSED AND DULY ADOPTED this 9th day of July, 1986.

CAROLINE COUNTY PLANNING COMMISSION

Philip E. Reed, Chairman

Dawson H. Carroll

Charles T. Dean Sr.

D. Eugene Harris

Namon R. Palmer

Thomas R. Shipley

David F. Tribbett

Elizabeth A. Krempasky
County Planning Director
& Executive Secretary

Tamala M. Holden
Recording Secretary

Enacted On: November 18, 1986

Effective Date: November 18, 1986

AN ACT concerning

CAROLINE COUNTY COMPREHENSIVE PLAN ADOPTION

RESOLUTION NUMBER 86-020

WHEREAS, the County Commissioners are empowered by Article 66B of the Annotated Code of Maryland to adopt a Comprehensive Plan; and

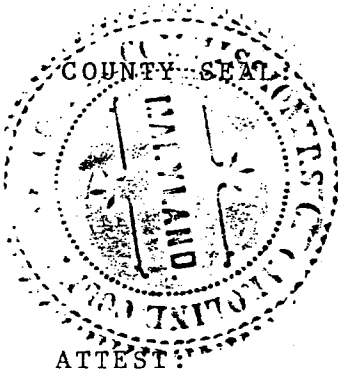
WHEREAS, the Planning Commission has prepared and approved a new Comprehensive Plan and recommended it to the County Commissioners for adoption; and

WHEREAS, the County Commissioners have held at least one duly noticed public hearing on the proposed Plan.

NOW, THEREFORE, IT IS HEREBY ENACTED AND ORDAINED THAT:

1. The Comprehensive Plan and the Land Use Plan Map are hereby adopted; and
2. The Comprehensive Plan adopted in 1968 and all amendments thereto are hereby repealed; and
3. This Resolution shall be effective immediately upon adoption, and shall be known as Resolution No. 86-020.

PASSED AND DULY ADOPTED this 18th day of November, 1986.



ATTEST:

Leigh Sands
Clerk

COUNTY COMMISSIONERS OF
CAROLINE COUNTY, MARYLAND

Charles T. Dean, Sr.
President

John S. Legates
Vice-President

Lee E. James
Member

SECTION I-1
INTRODUCTION

A. Purpose of the Plan

This Comprehensive Plan represents the completion of a process which began in January, 1985. At that time VITECH SERVICES was retained as planning consultants to assist the Planning Commission in the preparation of a new Comprehensive Plan. The Planning Commission, a volunteer body of seven citizens, has been responsible for developing the policy recommendations and priorities, assisted by the consultant as well as the County Planning Director and her staff.

Developing a Comprehensive Plan is a large and complicated task, and one which places a significant burden of time and study on the volunteer members of the Planning Commission. It is a process that has been and will continue to be controversial, since reasonable men and women can and will come to different conclusions on what course of action is best for their communities, their families and themselves.

To undertake the preparation of a Comprehensive Plan is a declaration of optimism by the Planning Commission. It is a statement of their belief that the future is not inevitable, that the development of Caroline County need not be left to chance or fate. Instead, they believe that the future can and should be shaped in an effort to achieve a more desirable result.

This Plan has been prepared to comply with Maryland's planning and zoning enabling law, which is found in Article 66B of the Annotated Code of Maryland. Section 3.05(a) of this law spells out the role of the Planning Commission in the comprehensive planning process:

"It shall be the function and duty of the commission to make and approve a plan which shall be recommended to the local legislative body for adoption and which shall serve as a guide to public and private actions and decisions to insure the development of public and private property in appropriate relationships . . ."

The Comprehensive Plan has a variety of purposes, including serving as a basis for regulatory action in the form of zoning and subdivision regulations, and as a guide to public and private investment policy. These purposes are further defined in Section 3.06 of the Annotated Code:

"The plan shall be made with the general purpose of guiding and accomplishing the coordinated, adjusted, and harmonious development of the jurisdiction, and its environs which will, in accordance with the present and future needs, best promote health, safety, morals, order, convenience, prosperity, and general welfare, as well as efficiency and economy in the process of

development; including among other things, adequate provisions for traffic, the promotion of public safety, adequate provision of light and air, conservation of natural resources, the prevention of environmental pollution, the promotion of the healthful and convenient distribution of population, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements."

This Comprehensive Plan consists of two separate volumes. This Volume I includes a summary of the important trends and issues and the goals and policies which will guide future development in Caroline County. Volume II is the Background for Planning. This volume provides a detailed look at the prior planning efforts in Caroline County, as well as the existing situation with regard to demographics, natural resources, public facilities and other essential data.

The Background for Planning provides the data necessary to identify the important trends and issues affecting the future development of Caroline County. The first step for the Planning Commission in developing the Background for Planning was to review the 1968 Plan to see what recommendations had been made and how successful the County has been in implementing those recommendations.

Next, the Planning Commission, as required by Section 3.06 of Article 66B of the Annotated Code, made "careful and comprehensive surveys and studies of the present conditions and future growth of the jurisdiction, and with due regard to its relation to neighboring territory." These surveys and studies provide the bulk of the factual data in the Background for Planning. This data is useful not only in the development of this Plan, but as a reference resource on Caroline County.

After the completion of data collection, the planning process included projections and forecasts of conditions in Caroline County in the target year of this Plan. These forecasts assume a continuation of current trends and no changes in the present public policies, regulations or plans.

The year 2000 was chosen as the target year for the Plan because it is less than 15 years away, or within a reasonable forecasting time frame. It is also an important symbolic watershed, representing the end of the current century and millennium and the gateway to the next.

The next task for the Planning Commission was to define in general terms the future of the County as they would like to see it. As a part of this process, the Planning Commission conducted two informal public meetings to receive input and suggestions from agencies and organizations and the general

public.

The results of this public participation program are described in detail in the following section. It provided the Planning Commission with a list of dominant themes, or overall goals, which then guided the development of specific goals and policies. These policies are the result of a careful review of the existing conditions and projected trends in each of the areas addressed.

These policies are included in the individual plan elements which make up the Comprehensive Plan:

1. The Land Use Plan
2. The Transportation Plan
3. The Community Facilities Plan
4. The Chesapeake Bay Critical Area Element

As the culmination of the planning process begun in January, 1985, this Comprehensive Plan is an expanded vision of what the Planning Commission believes Caroline County can and should achieve by the year 2000.

The Planning Commission recognizes that the conditions and trends used to prepare this Plan may change. In addition, future experiences may alter the policies and priorities of the Commission. Therefore, a process of regular review and revision of the Plan is essential. The Planning Commission recommends that these reviews be scheduled in 1990 and 1995, so that the Plan can be maintained as an up-to-date and relevant policy tool.

B. Public Input

Prior to beginning its work on the new Comprehensive Plan, the Planning Commission considered it essential to receive input from the public. The Commission felt that such public input would be a valuable guide in its deliberations on policies for the new Plan.

Two public meetings were scheduled as a part of this public participation process. The first meeting was held on June 12, 1985. Written invitations were mailed to 50 local service organizations and governmental agencies.

The public meeting was kept informal with an open format. At the beginning of the meeting the Commission's consultant and the County Planning Director explained the purpose of the meetings and the procedure that would be used to develop and adopt the plan.

Those attending the public meeting were encouraged to provide the Planning Commission with their ideas on what the future of Caroline County should be like, and how they felt this future result could best be achieved. Comments were received from 13 speakers and are recorded in the Planning Commission minutes and summarized below:

- Need planned not piecemeal development.
- Need to attract new industry, retain existing industry.
- Town sewer systems are overloaded, expansion is needed.
- Encourage development closer to Towns, and provide incentives for such.
- Cluster highway development to prevent strip development on highways.
- Control poorly kept properties, a property maintenance code is needed.
- Maintain a good balance between industry, commerce and agriculture.
- Failing septic systems are a serious problem.
- Mobile home regulations are too liberal, restrict mobile homes to parks.
- Protect groundwater resources.
- Preserve agricultural land.
- Stay an agricultural county.
- Locate industry in industrial parks.
- Towns need County help to grow.
- Reconsider establishing a County police force.
- The State is pushing for expanded educational services, including public pre-school.
- Provide orderly housing growth with less land consumed.
- County cannot afford to provide "town" services to rural areas.

- Keep distinction between towns and "country".
- Increase commercial and industrial tax base.

The second public information meeting was held on July 10, 1985. The general public was invited to participate in this meeting and was encouraged to do so through announcements and a newspaper advertisement. The question posed to the public was: "What kind of County do you want Caroline County to be in the year 2000?"

The following themes were expressed by those persons speaking at this public meeting:

- Towns should cooperate on industrial parks.
- Promote tourism development.
- Avoid strip commercial development.
- Keep Caroline a low density, rural county.
- Prevent loss of farmland.
- Develop more agriculturally related industries.

Comments received at the public meeting are recorded in the Planning Commission minutes.

C. Overall Comprehensive Plan Goals

The Planning Commission decided to use the input received from the public during the process described in the preceding section as the basis for the overall goals which will guide this Comprehensive Plan. From the comments received the Planning Commission has extracted the dominant themes which are summarized in the following Overall Comprehensive Plan Goals:

1. The current scattered development pattern should be discouraged so that development is concentrated nearer the towns.
2. Caroline County should remain a rural county. The existing rural life-style and character should be preserved.
3. Economic development is important and should be encouraged, consistent with the desire to keep Caroline a rural county.
4. Public facilities need to be improved and expanded, but urban type services cannot and should not be provided to the rural areas.
5. New development should be planned to avoid the undesirable effects seen in neighboring counties, such as strip commercial development along major highways.
6. Agriculture remains a key to the local economy and character, and must be preserved and enhanced.
7. Agriculture should be the preferred land use in the "R" Rural and "A" Agriculture Districts.
8. Preservation of Caroline County's historic buildings and sites is important for the development of tourism and maintenance of the County's heritage and character.

Since these goals were developed from the public input solicited and received at the beginning of the planning process, the Planning Commission feels that they properly reflect the expressed will of the citizens of Caroline County.

These overall goals form the basis for developing specific goals and policies for this Comprehensive Plan.

SECTION I-2
SUMMARY OF
TRENDS AND ISSUES

A. The People

After decades of relative stability of population, Caroline County began to experience significant population growth around 1970. This growth is projected to continue through the target year of 2000, although at a somewhat slower rate than experienced during the 1970's.

While population growth has occurred throughout Caroline County, it has been greatest in the rural areas. This is the opposite effect forecast in the 1968 Comprehensive Plan, which projected that growth would occur primarily around the larger towns of Denton and Federalsburg.

Population growth of the incorporated towns has lagged behind the growth of the unincorporated County. These towns' portion of total County population actually shrank during the 1970's.

Since 1960 population growth has been greatest (in percentage terms) in the Preston and Henderson areas, and least in the Federalsburg area.

Major shifts have recently occurred in the make-up of the population of Caroline County. Prior to 1970, the County experienced heavy out-migration of young adults, as is often typical of rural areas. During the 1970's this trend reversed, with significant in-migration occurring. The result was substantial growth in the prime working age population group, 15 to 35 year old residents.

Along with the rest of the nation, birth rates declined drastically in Caroline County in the 1970's, resulting in a fall in public school enrollment. It appears that birth rates have now stabilized and that births will slowly increase through 1990. This will first stabilize and later produce a gradual increase in school enrollment.

Income of Caroline County residents remains significantly below that of the rest of Maryland. However, there have been real gains in income in recent years, exceeding the increase in income for the State of Maryland and the rate of inflation. Significant variations in income occur within Caroline County. The highest median family income is in the Denton area, the lowest in the Henderson area.

Poverty, as measured by the number and percentage of families below the poverty line, has declined considerably throughout Caroline County. However, Caroline County still ranks high among neighboring counties in the percentage of local poverty families and persons.

This summary is derived from Section I-3.A in Volume II, Background for Planning. Readers are directed to that

Volume for more detailed information and discussion of this subject.

B. The Economy

There have been significant changes in the economy of Caroline County in recent years. Most notable has been the decline of food processing industries and their replacement with a more diversified industrial base.

Although there was significant growth in employment in some economic sectors, including wholesale and retail trade, services, transportation and utilities, and finance, total employment in Caroline County grew only slightly between 1970 and 1983. This was due largely to the loss of food processing industry jobs as noted above.

At the same time that employment in the County was largely stagnant, population was growing rapidly and more women were entering the labor market. The result has been the rapid rise in the number of Caroline residents who are commuting to jobs outside the County. In 1980 this figure was over 42 percent of the local labor force. The largest destinations for these commuters was neighboring Talbot County, followed by Delaware.

The closing of food processing industries and the related loss of jobs has encouraged active economic development programs in the County and several towns. A notable success so far has been the Federalsburg Industrial Park, containing nine companies employing over 500 workers. Additional industrial parks have recently been created in Federalsburg and Denton.

It is projected that most new industry locating in Caroline County in the coming years will locate in these planned industrial parks. They offer preferred locations for light industry, including the ready availability of land, proper zoning, available public facilities, financing programs, spacious lot sizes and protective covenants and restrictions.

As a result of the recent decline in food processing industry and the promotion of the industrial parks, industry in Caroline County today consists of a diversified range of light manufacturing and service industries in a variety of industry groups. This will result in a more stable economic base for the County.

Commercial business (retail sales and services) has been a weak point in the local economy for many years. This was recognized in the 1968 Comprehensive Plan, but no effective solution was implemented. While due to many causes, the principal reason for this commercial weakness is the lack of a concentrated population base capable of supporting a diversified commercial sector.

Population in Caroline County is widely scattered, with 10 incorporated towns and many small villages or corners. The combined population of the Towns was only 31 percent of the total county population in 1980, and a decline from 34 percent in 1970. The dispersed population growth since 1970 has actually worsened this situation. Much of the new housing has been located in rural subdivisions remote from commercial businesses of the County's larger towns. Some of these subdivisions are located near the County line and are basically bedroom communities.

With no town larger than about 2,000 persons, Caroline County's commercial centers have been unable to compete with the rapid commercial growth in neighboring areas, especially Dover and Seaford, Delaware, and Easton and Salisbury. The lack of a sales tax in Delaware has also been a contributing factor, as has the high rate of commuting to outside jobs. As workers have traveled to outside employment, they have also established other economic relationships in the host community, at the expense of Caroline County businesses.

Caroline County has proudly proclaimed itself as "The Green Garden County". Blessed with productive agricultural lands and a rich farming heritage, agriculture remains the most important industry in the County.

The major source of farm sales and income in Caroline County is the poultry industry, which accounted for 59 percent of farm sales in 1982. Among Maryland counties, Caroline ranked at or near the top in all major crop production categories in 1982.

The national trend to fewer and larger farms has also been apparent in Caroline County. In addition, the total land area in farms in Caroline County has also declined somewhat in recent years as land was converted to subdivisions, highways and other land uses.

Total land in farms declined by about 2,000 acres between 1978 and 1982, to 131,094 acres. During this same time cropland was increasing by about 3,000 acres. Much of this new cropland came from woodland, which was being cleared at a rapid rate. Between 1978 and 1982 almost 4,000 acres of farm woodland was eliminated.

This summary is derived from Section I-3.B in Volume II, Background for Planning. Readers are directed to that Volume for more detailed information and discussion of this subject.

C. The Natural Resources

Among the most important components of data required for land use planning is soils information. Soils are the primary natural resource which determines the suitability of land for various uses, from agriculture to housing and industry.

Suitability of soils for septic tank systems is the greatest natural resource limitation on development in Caroline County. Large areas of the County are not suitable for septic tank systems because of poor soil drainage and high seasonal water tables.

Soil suitability often creates an inherent conflict between development and agriculture. All new development in Caroline County which occurs outside of a few major towns will be served by individual on-site septic systems. The soil requirements of these septic systems are also important characteristics of good agricultural lands.

Agricultural land is an economic resource which supports the largest industry in Caroline County. It also provides the historical and cultural basis for the rural lifestyle so valued by the residents of the County. At the same time, it is also a natural resource under constant threat of conversion to other land uses.

Quality farmlands are located throughout the County but are concentrated in two of the four soil associations, which generally exclude the northern and southeast portions of the County.

Caroline County has been an active and successful participant in the State of Maryland's Agricultural Land Preservation Program. While the accomplishments of the program are impressive, only a relatively small percentage of farmland is now included in agricultural preservation districts. Participation in the program will continue to grow in the future. However, it alone is not sufficient to protect the majority of agricultural land in the County.

Forest lands in Caroline County are a rapidly declining resource. Between 1969 and 1982 farm woodland acreage has declined by over 6,200 acres. Most of this woodland has been cleared for cropland, while some has been converted to subdivisions and other urban land uses.

As the better quality woodland has been converted to other uses, the remaining woodlands are increasingly of poor to marginal quality for forestry purposes.

There are no known minerals of economic importance in Caroline County except for sand and gravel deposits. These

deposits occur in scattered and random locations, with most historic gravel pits located near rivers and streams.

Detailed geologic information is not available for Caroline County which will allow the identification of mineral resource lands. Therefore, this Comprehensive Plan does not incorporate specific land use policies and regulations to prevent the preemption of mineral extraction by other land uses. If such detailed geologic information becomes available at a future date, then this Plan will be reviewed and revised accordingly.

Caroline County is blessed with a variety and abundance of groundwater resources. These resources occur in a series of aquifers, or water bearing strata, hundreds of feet in thickness beneath the County. All domestic, commercial and industrial water supplies in the County are obtained from groundwater sources, so their protection and wise use is a critical issue.

The shallowest of these aquifers, the Columbia (Pleistocene) Aquifer or "water table aquifer" is found throughout the County at shallow depths. It is often of good quality and is widely used for water supply. However, its shallowness makes it readily recharged by surface streams and percolating rainfall. This recharge can easily contaminate the aquifer from fertilizers, septic system, animal wastes and other urban and agricultural pollution sources.

Because of the growing contamination of the Columbia Aquifer, greater use will be made in the future of deeper aquifers. These deep aquifer strata are generally available throughout the County.

All of Caroline County is located in the drainage basin of the Chesapeake Bay. The major streams in the County, the Choptank River and Tuckahoe and Marshyhope Creeks, are tributaries to the Bay and are tidal for much of their length within the County.

Water quality in these streams is generally good, although there are sometimes violations of standards for bacteria and excessive enrichment with nutrients.

These surface waters are a valuable resource for fish, wildlife, future water supply and recreation. The major threat to these resources is from sedimentation and agricultural and urban runoff.

Millponds were once a significant water resource in Caroline County. However, most have been lost over the years to neglect and storms. Recent and especially serious losses were Garland Lake and Linchester Mill Pond. Today only six of these millponds remain.

Wetlands, formerly viewed as wastelands, are today recognized as valuable for wildlife habitat, water quality and flood control. Tidal wetlands total 3,392 acres and are heavily protected by State and Federal regulations. Non-tidal wetlands are more common, but are not generally threatened by urban development due to the poor suitability of their soils and their flood potential. The greatest danger to these wetlands lies in agricultural drainage activities.

Floodplains have been mapped in Caroline County as a result of the County's participation in the Federal Flood Insurance Program. Maps are available which show the location of the 100-year floodplain, or the area statistically subject to flooding once every 100 years. As part of its participation in this program, the County has adopted and enforces restrictions on development in the floodplain through its Zoning and Subdivision Ordinances.

Because of the small size of watersheds, gentle topography and wide stream beds, flooding is not highly destructive in Caroline County. With the exception of the downtown Federalsburg area and some residential areas in Greensboro, there is little development presently located in floodplains in Caroline County. There is no substantial development in floodplains in the unincorporated areas of Caroline County.

This summary is derived from Section I-3.C in Volume II, Background for Planning. Readers are directed to that Volume for more detailed information and discussion of this subject.

C. The Man-Made Environment

The historic development pattern of Caroline County has been determined by the dominant mode of transportation available in each era. In the earliest years of settlement, water transportation dominated, and farms and settlements were located along navigable rivers and streams. Towns prospering during this era included Denton, Federalsburg, Greensboro and Hillsboro. All of these towns except Denton were located at the head of navigation on a major stream.

Later railroads became an important form of transportation and other towns located on these rail lines also prospered. During this era towns such as Ridgely, Henderson, Goldsboro and Marydel grew and developed.

During all of these development periods residential development, except for farmsteads, tended to concentrate in locations close to employment and business services.

In this century the advent of the automobile has allowed residential development to spread into the countryside in strips along major highways. Maryland Route 313 with its extensive residential development between Denton and Greensboro is an example of this trend. More recently, this trend has continued with the establishment of larger planned subdivisions, often in rural locations. Many of these new subdivisions are remote from both places of employment and retail and service businesses.

Subdivision activity increased steadily in the late 1960's and reached a peak in the mid-1970's. Many of these newly created lots could be reached only by unimproved dirt roads. Some of the subdivisions existed on paper only, with the developer making no investment in roads or other facilities.

Major subdivisions (those with five or more lots) recorded since 1963 contain 1,731 lots. These major subdivisions have resulted in the conversion of 3,083 acres of land from agricultural and forestry uses.

Throughout the 1970's, subdivisions were a major land use issue. To improve and control them, repeated changes were made in the Subdivision Regulations. These changes, combined with adverse market conditions in the late 1970's and 1980's, have resulted in a substantial drop in new major subdivisions.

Current Subdivision Regulations require a higher standard of development than in the past, but are still modest compared to the requirements of many other neighboring counties. In addition, there is no geographic restriction on subdivisions in the Zoning Ordinance. Both major and minor subdivisions can be placed anywhere in the "R-1" Single Family

Residential and "R" Rural Districts. Together, these two zoning districts cover over 90 percent of Caroline County.

It is projected that major subdivision activity will once again increase in the future as market conditions improve. These improved conditions will include a reduction in the excess inventory of recorded lots, lower interest rates and and improved overall economy.

Minor subdivisions, or those with four or fewer lots, have also been the subject of considerable regulatory review by the Planning Commission in the past. Currently minor subdivisions are allowed with only minimal improvements.

Since 1977 minor subdivision lots have been created at a rate 2.5 times that for major subdivision lots. Because these lots are also generally larger, they have consumed 3.6 times as much land as major subdivisions during the same time period.

There are strong financial incentives to developers to seek out small parcels of land for developing minor subdivisions rather than developing major subdivisions. This has resulted in the further scattering of small subdivisions without improvements throughout the rural areas of the County.

Mobile homes are one of the more controversial forms of land use frequently at issue in rural areas, including Caroline County. In 1980 mobile homes constituted about 9 percent of the total housing units in Caroline County, the highest percentage of any of the nine Eastern Shore counties. The greatest concentration of mobile homes is in the First Election District, the Henderson area.

The Caroline County Zoning Ordinance recognizes mobile homes as a separate form of residential land use, and provides a variety of permit procedures for the placement of mobile homes. These regulations were developed after years of public hearings and modifications and are aimed at achieving a reasonable middle ground between outright prohibition and unrestricted placement of mobile homes. The current regulations appear to be accomplishing this intended purpose, although it is unlikely that any regulations will satisfy persons on both sides of this issue.

Multi-family residential development, another separate form of residential land use, is essentially non-existent in the unincorporated areas of Caroline County. Because of their density, such developments require community water and sewerage facilities. These facilities and services are available only within the corporate limits of the five larger towns. Therefore, multi-family residential developments are possible only within or in the immediate vicinity of these towns.

Since the towns will provide these facilities only within their limits, projects located in the unincorporated County will have to be annexed into a town. Therefore, multi-family zones in the County are largely a holding zone until the project can obtain a commitment for municipal service and annexation.

A substantial number of multi-family units have recently been completed in the Towns or are in the planning stage.

Housing construction in Caroline County has been strongly affected by the national economy, especially interest rates. New home construction in the unincorporated areas reached a peak of 191 units in 1977, and fell to a low of 58 units in 1982. Recently, housing construction has gradually increased to 116 units in 1985.

There has been a gradual shift in the concentration of these new homes from the Preston area in the early 1970's to the Denton and Greensboro areas in recent years.

Most of the major public facilities in Caroline County are the subject of functional plans. These functional plans provide detailed data. Further discussion of public facilities and these functional plans are included in the subsequent section on Other Plan Elements.

This summary is derived from Section I-3.D in Volume II, Background for Planning. Readers are directed to that Volume for more detailed information and discussion of this subject.

SECTION I-3
COMPREHENSIVE
PLAN ELEMENTS

A. Land Use Plan

Article 66B, Section 3.05(a)(2) of the Annotated Code of Maryland, requires that the Comprehensive Plan include a Land Use Plan Element, which it describes as follows:

"A land use plan element which shall show proposals for the most appropriate and desirable patterns for the general location, character, extent, and interrelationship of the manner in which the community should use its public and private land at specified times as far into the future as is reasonable. Such land use may include, without being limited to, public and private, residential, commercial, industrial, agricultural, and recreational land uses."

As previously noted, the target year for this Plan is the Year 2000. Caroline County will see a considerable change in the fourteen intervening years between today and that target date. The population of the County will grow, new subdivisions will be recorded and developed, new businesses will open, recreational facilities and parks will be provided, community facilities constructed, industry attracted to the community, and a variety of other land use changes will occur.

Most of these changes will occur with or without land use planning. However, the location, manner and impact of the changes will be greatly affected by this Land Use Plan. Without land use planning the result will be haphazard growth. With land use planning, the result can be orderly change which preserves the rural character of Caroline County while providing for economic and social progress.

The Land Use Plan Map is shown on Plate I-1. This Map shows each of the land use categories and the geographic locations within Caroline County where they are compatible with this Plan. In some instances the representation of these land use categories overlap each other. This is in recognition that the Comprehensive Plan may provide for more than one land use to be compatible within certain geographic areas.

The Land Use Plan Map is intended as a geographic representation of the goals and policies included in this Plan, for the purpose of simplifying implementation of the Plan. The Land Use Plan Map is not intended as a concrete guide to development which will take the place of the Official Zoning Map and other implementation techniques.

Following are the recommended policies for various land use categories. All of these policies are based on the Overall Comprehensive Plan Goals outlined in Section 1-1.C above. Through the implementation of these policies the Planning Commission will seek to achieve its Overall Goals.

Residential Land Use

The Planning Commission has adopted the following specific goals to guide the development of policies for residential land use:

1. Provide an adequate supply of economical building lots for single-family homes in appropriate locations compatible with the intent of this Comprehensive Plan.
2. Avoid conflicts between agriculture and residential development.
3. Preserve agricultural lands.
4. Preserve open spaces and the aesthetic appearance of the rural countryside.
5. Control the sources of non-point water pollution from residential development, including surface runoff and septic system drainage.
6. Encourage economical provision of public facilities and services.
7. Concentrate population to better support the local economy, including County businesses, and to enhance the local labor force and improve the provision of public facilities and services.
8. Protect valuable natural resources, including but not limited to wetlands, wildlife, forests and rare and endangered species.

1. Single-Family Residential and Subdivisions

The majority of residential development in Caroline County today consists of single-family homes on individual lots. Much of the construction of new single-family homes during the next fourteen years will occur on lots already recorded prior to the adoption of this Comprehensive Plan. It is not intended that this Plan alter or restrict the continued use and development of these existing lots.

Under the existing Caroline County Zoning Ordinance and Subdivision Regulations, new single-family residential lots are created in two types of subdivisions. Major subdivisions contain five or more lots and must meet the improvement standards specified in the Subdivision Regulations. Review and approval by the Planning Commission is required.

Minor subdivisions contain from one to four lots and have a much simpler administrative approval procedure. There are few improvements required.

The Zoning Ordinance allows both types of subdivisions in the "R" Rural and "R-1" Single-Family Residential zoning districts. The "R-1" zones are generally located in areas immediately surrounding the towns and villages. However, there are several large areas of "R-1" zoning in rural locations where extensive single-family residential development would be undesirable. On the other hand, there are other areas close to towns which are presently zoned "R" rather than "R-1", when their proximity makes residential development desirable.

Together, these two districts make up the vast majority of the area of Caroline County. In effect, subdivisions of either type are permitted without a rezoning in almost any location in Caroline County.

As noted above, review and approval by the Planning Commission is required for major subdivisions. However, the Planning Commission does not have the authority to disapprove a subdivision which is in compliance with the design and improvement standards of the Subdivision Regulations. As a result, their review necessarily focuses on issues of design and improvements, and not on the land use change or impacts which will result from approval of the subdivision.

As fully detailed in Volume II, Background for Planning, major subdivisions have been widely scattered throughout the rural portions of the County. This random pattern of development has had adverse land use impacts, including an unnecessary consumption of agricultural land, placement of residential communities in agricultural areas, inefficient

provision of public facilities and a weakening of economic linkages to the County's towns and businesses.

In order to correct these adverse land use impacts, the Planning Commission recommends the following policies for major subdivisions:

1. Require a Rezoning for Major Subdivisions in the "R" Rural Zone - Major subdivisions are a significant land use change. When proposed for locations zoned "R" Rural, they should be subject to the deliberative process provided by rezoning review. This will allow the Planning Commission to fully consider the impacts and benefits of each subdivision proposal, rather than be limited in its review to checking compliance of the subdivision with the criteria in the Subdivision Regulations. Guidelines which should apply to consideration of rezoning applications for subdivisions may include:
 - a. Conformance with the Land Use Plan Map.
 - b. A finding of a substantial change in the character of the neighborhood where the property is located.
 - c. A finding of a mistake in the existing zoning classification.
 - d. Proximity to towns and other residential land uses.
 - e. Impact on agricultural activities and resources.
 - f. Effects on population change.
 - g. The availability of public facilities.
 - h. Present and future transportation patterns.
 - i. Compatibility with existing and proposed development for the area.
2. Undertake a Comprehensive Zoning Review of "R-1" Single-Family Residential Property - The Official Zoning Map should be reviewed and revised to insure that the area and location of "R-1" zoning will further the purposes of this Comprehensive Plan. Guidelines which the Planning Commission should apply to determine the appropriate locations for "R-1" zoning districts can include:
 - a. Proximity to towns.
 - b. Planned service areas in the Comprehensive Water and Sewerage Plan.

- c. Rural areas with a significant existing residential character.
 - d. Compatibility with the Land Use Plan Map.
 - e. Suitability of soils for on-site septic tank systems.
3. Environmental Assessments - Prior to approval of major subdivisions, the Subdivision Regulations should require an environmental assessment to determine impacts of the proposed development on valuable natural resources, including but not limited to wetlands, wildlife, forests, and rare and endangered species.

Minor subdivision activity, as noted in Volume II, Background for Planning, has exceeded major subdivision activity in recent years in terms of the number of lots created and acreage consumed. These subdivisions have also been widely scattered throughout the rural locations.

Because of their smaller size, minor subdivisions create less of an impact on land use patterns than do major subdivisions. Many minor subdivisions involve only one or two lots, and often they are associated with conveyances of land from one family member to another.

The Planning Commission recognizes that the cumulative effects of many minor subdivisions may be the kind of significant land use change associated with major subdivisions. A concentration of these developments in one area may gradually change the character of the area from rural to residential without consideration of the land use effects.

The Planning Commission has determined that the scale of development of minor subdivisions is generally compatible with the rural character of the "R" Rural zone. Therefore, minor subdivisions should continue to be allowed in both the "R" and "R-1" zones with a simplified approval procedure.

However, some problems with the current procedures for minor subdivisions are evident. Chief among these is the creation of three or four lot minor subdivisions as a means of escaping the road construction and other improvement requirements of major subdivisions. In addition, some situations have allowed the creation of multiple minor subdivisions on separate parcels of land, all feeding to an unimproved private road.

In order to preserve the benefits of minor subdivisions but to correct their shortcomings, the Planning Commission recommends the following policies for minor subdivisions:

1. Define Parcels of Land Differently - Re-define a

parcel of land to mean a property described in a single recorded deed in 1972, and/or a property shown on a plat recorded before 1972. These changes are intended to eliminate the creation of multiple minor subdivisions.

2. Limit Lots Accessing a Private Road - A limit should be placed on the maximum number of lots which can access to a private road.
3. Establish Minimum Standards for Private Subdivision Roads - Prohibit "paper" streets in minor subdivisions. At the time of plat approval require private roads in minor subdivisions to meet certain minimal standards of base and drainage where more than one lot is accessed.
4. Require Maintenance Assignment for Private Roads - When private roads are created in a minor subdivision, require the subdivider to disclose on the deed and/or plat that they are private roads and will not be publicly maintained. The subdivider should be required to assign responsibility for maintenance of the roads by deed or covenant.

2. Multi-Family Residential

Multi-family residential development in Caroline County is permitted in the "R-3" Multi-Family Residential District, which is intended to provide high density single-family and multiple-family residential development, including apartments, two-family dwellings and townhouses.

As discussed in Volume II, Background for Planning, this type of high density residential development requires community water and sewerage facilities. These facilities are available only within the County's five largest towns: Denton, Federalsburg, Greensboro, Preston and Ridgely.

Because of the limited availability of community water and sewerage facilities in Caroline County, the potential locations of "R-3" districts are severely restricted. By necessity "R-3" districts must be located adjacent or in the immediate vicinity of one of the larger towns, where annexation and service by the town is possible.

Multi-family and other high density residential development is an appropriate land use in selected locations within the towns and highly developed areas. Multi-family residential development conserves land and makes an efficient use of public facilities. Population is concentrated close to the retail and commercial service businesses of the town, and opportunities for affordable housing are possible.

In order to obtain the benefits of multi-family residential development in appropriate locations, the Planning Commission recommends the following policies:

1. Encourage Multi-Family Residential Development in Appropriate Locations - The major locational criteria which will govern multi-family housing locations is the availability of public water and sewerage service. These developments should be approved only where municipal water and sewerage facilities are immediately available, or where they will be made available by the applicable Town authority.
2. Encourage Multi-Family Development Within the Larger Towns - All multi-family development should be located within the corporate limits of the five larger towns which provide community water and sewerage facilities.
3. Encourage Town Initiative in Multi-Family Developments - Where multi-family residential is proposed outside a town, it is preferable that the town initiate the annexation and rezoning procedures, since the town will have the ultimate responsibility for the project.
4. Avoid Speculative Rezoning - The creation of any "R-3"

Multiple-Family Zoning Districts shall be done for the purpose of facilitating their ultimate annexation by one of the five larger towns prior to development. Rezoning where town commitment to annex and service the project is absent are speculative and should be avoided.

3. Mobile Homes

As discussed in detail in Volume II, Background for Planning, the current regulations governing mobile homes are the result of a long term development effort. It is their purpose to provide reasonable opportunities for the placement of mobile homes in Caroline County as an affordable housing alternate, while protecting other land uses from adverse impacts.

It is the finding of the Planning Commission that these regulations are proper and effective, and no major alterations are recommended at this time.

One concern of the Planning Commission regarding mobile homes is the question of tax equity. Preliminary evidence indicates that assessments for mobile homes placed on individual lots are not increased at rates comparable to other residential land uses. Mobile homes in parks are not assessed as real property, but the park owner pays a monthly levy to the County for each occupied mobile home.

These taxing practices have raised the issue as to whether mobile homes pay a fair share of taxes necessary to support education and other local governmental service expenditures.

In order to obtain the benefits of mobile home development in appropriate locations, while protecting other land uses from adverse impacts, the Planning Commission recommends the following policies:

1. Mobile Homes Are a Specific Form of Residential Land Use - Mobile homes are distinguishable from other residential land uses such as conventional single-family dwellings, two-family dwellings, townhouses and apartments. They are therefore subject to different regulations and standards than those applied to other forms of residential land use.
2. Existing Mobile Home Regulations are Adequate - The existing Caroline County Zoning Ordinance provides a reasonable balance in the regulation of mobile homes, and no significant changes are recommended in this Plan.
3. Explore Tax Issues - The Planning Commission should explore methods whereby mobile homes can be made to pay a more equitable share of local government taxes.

Commercial Land Use

As discussed in detail in Volume II, Background for Planning, the 1968 Comprehensive Plan recognized that the major problem facing Caroline County with regard to commercial development was the widely scattered population and lack of a concentrated commercial center. As noted, this situation has worsened since 1968 as recent development patterns have further diminished the relative status of the incorporated towns.

In addition to land use and population patterns, major problems facing the commercial sector in Caroline County include the well developed commercial centers in surrounding counties, high commuting rates, and lack of a Delaware sales tax.

The Caroline County Zoning Ordinance provides for three commercial zoning districts. Briefly, these districts and their purposes are:

1. "H-C" - Highway Commercial District - Provide specialized retail establishments and commercial services for use by the traveling public on or near the Major Arterial and Arterial Roads in the County; and at the same time to maintain the appearance of these highways and their access points by limiting outdoor advertising and establishing high standards for development.
2. "C-1" - Neighborhood Commercial District - Provide for a variety of commercial retail stores, businesses and personal services which serve primarily the needs of the adjacent neighborhood. Furthermore, the size of any permitted commercial, retail or personal service establishment in this zoning district shall be limited to a maximum gross floor area of three-thousand (3,000) square feet, unless a Variance is granted by the Board of Zoning Appeals.
3. "C-2" - General Commercial District - Provide for a wide variety of commercial retail stores, business and personal services of any size serving a large geographic area. Furthermore, the size of any commercial wholesaling and warehousing establishments in this zoning district shall be limited to a maximum gross floor area of twenty thousand (20,000) square feet, unless a Variance is granted by the Board of Zoning Appeals.

The Planning Commission has concluded that these existing zoning districts and their purposes and allowable uses are adequate at this time.

There are instances where existing commercial zoning districts are located in areas which are not compatible with the purpose of that district. These areas should be reviewed through the comprehensive zoning procedure.

In addition, changing conditions or mistakes in existing zoning will create the need for new commercial rezonings, either by application or by comprehensive rezoning. An example is the Denton By-Pass. This project will significantly alter traffic patterns and create major changes in the character of the adjoining areas. These changes will produce new opportunities for commercial development.

There is no magic formula which will reverse the commercial trend in Caroline County and produce a vigorous retail and service sector. Solutions which can be offered through the Comprehensive Plan are limited and long-range in effect, but must be undertaken if further deterioration is to be prevented.

The Planning Commission has adopted the following goals to guide the development of policies for commercial land use:

1. Stabilize and promote the growth of the commercial business sector, including a full range of retail and service businesses.
2. Retain a greater portion of the purchasing power of local residents within the economy of Caroline County.
3. Increase employment in the commercial sector within Caroline County.
4. Take advantage of the economic opportunities provided by beach traffic and other travel and tourism related business.

In order to achieve these goals on commercial development, the Planning Commission recommends the following policies:

1. Concentrate New Population Growth - By concentrating new population growth in or near the major towns, economic relationships can be fostered which support local commercial development.
2. Pursue an Active Business Assistance Program - Assist the development of the commercial business sector through a program of training local businessmen and entrepreneurs in finance and marketing skills, so that they are better able to compete for local business. This program should be implemented by the Economic Development Commission utilizing the available resources of other agencies and organizations including, but not limited to Chesapeake College, the Caroline County Board

of Education, and the University of Maryland Cooperative Extension Service.

3. Increase Local Employment Opportunities - Increasing local employment will reduce the rate of outside commuting. This will help to foster relationships between employees and local businesses, and reduce the export of local purchasing power. Targeted vocational training can help to meet this goal.
4. Reserve Land Suitable for Commercial Development - Provide adequate land area for all types of commercial businesses through the Caroline County Zoning Ordinance. Commercial district area should be sufficient to reduce the need for frequent rezonings and to provide a variety of choices for businesses seeking sites.
5. Insure Commercial Districts Are Compatible With the Purpose of That Commercial Zoning District - Through comprehensive zoning reviews, insure that all commercial districts conform to the purposes of the district, including the type of business, the service area and appropriateness of location. Existing commercial districts which do not conform to the purpose of the district or locational criteria should be rezoned to other uses through a comprehensive rezoning procedure. General locational criteria for the three commercial districts shall be:
 - a. "H-C" Highway Commercial - Locations adjoining and accessible to Major Arterial Roads (usually state highways) at major intersections or near towns, where the primary clientele will be the traveling public.
 - b. "C-1" Neighborhood Commercial - Neighborhood locations accessible to residential areas and in villages and corners, where the primary clientele will be neighborhood residents.
 - c. "C-2" General Commercial - Locations adjoining or near and accessible to Major Arterial Roads, where the primary clientele will be from a large geographic area, including residents of the nearby population center and the traveling public.
6. Prevent Strip Commercial Development - Strip commercial development along rural highways should be prevented. All commercial districts should be located in areas near population centers and major intersections. The open appearance of the rural countryside between major highway intersections and population centers should be maintained.
7. Encourage Concentration of Commercial Businesses -

Provide sufficient depth for commercial districts adjoining highways for multiple businesses to reduce the number of entrance points and highway frontage required for commercial development, so as to concentrate commercial businesses in locations consistent with this Plan.

8. Discourage Speculative Rezonings - Discourage commercial rezoning for speculative purposes, where land will be held in an undeveloped state. Where appropriate, utilize the "use it or lose it" provisions of the Zoning Ordinance to discourage speculative rezoning.
9. Encourage the Growth and Expansion of Existing Businesses - Existing commercial businesses provide the basis for beginning an improvement of the commercial economy. Their growth and expansion should be encouraged, except where they are designated as non-conforming uses.
10. Promote Local Goods and Services - Caroline County residents are "trained to travel" to shop for goods and services by habit and tradition. Promotion efforts should be undertaken to change residents' perception and knowledge of the goods and services available locally. A unified County Chamber of Commerce could sponsor such an image enhancing program.

Industrial Land Use

As discussed fully in Volume I, Background for Planning, there have been major changes in the industrial economy of Caroline County since the 1968 Comprehensive Plan. Principally, the majority of food processing industries have closed while a variety of new and diversified industries have been attracted to Caroline County.

Three full service industrial parks have been established: Federalsburg Industrial Park and Caroline Industrial Park in Federalsburg, and the Denton Industrial Park. These parks provide a full range of necessary facilities for light industry. It is anticipated that Caroline County will continue to be successful at attracting new industry, and that most of these new businesses will locate in one of the three industrial parks.

The Caroline County Zoning Ordinance provides for a single industrial district, the "I-2" Light Industrial District. The purpose of this district is to provide for a wide range of industrial uses which are compatible with adjacent uses to the extent that any adverse effects on health, safety, welfare, or the environment are avoided. Furthermore, this zoning district is intended primarily for light manufacturing, fabricating and warehousing with off-street parking for employees and with access by major thoroughfares or railroads.

Light industries include those which manufacture, process, store, package or distribute goods and materials; and are, in general, dependent on raw materials refined elsewhere. Any other industrial use not of the character described above may be permitted if approved as a Special Use Exception by the Board of Zoning Appeals.

The Planning Commission considers the Zoning Ordinance provisions relative to industrial development to be adequate at this time.

The Zoning Map now reserves a very large total acreage in industrial districts. Some of these industrial districts are in areas inappropriate for industrial use, and others are excessive in size. Since other uses are severely restricted in the industrial district, it is not desirable to reserve an excessive amount of industrial land.

The Planning Commission has adopted the following goals to guide industrial development in Caroline County:

1. Attract new industry to diversify the local economy and to provide employment opportunities for Caroline County residents and tax revenue for local government.

2. Attract new industry which maintains a scale appropriate to the rural character of Caroline County, and which provides employment for Caroline County residents without encouraging a large influx of new residents.
3. Encourage and assist the growth and expansion of existing industry already located in Caroline County.

In order to achieve these goals on industrial development, the Planning Commission recommends the following policies:

1. Direct New Industry to the Industrial Parks -
Encourage new industry, where suitable, to locate in the established industrial parks. Most but not all new industry will be suitable for these parks. Suitability criteria will include the type of manufacturing operation, public facility requirements and employment/land ratio.
2. Reserve Adequate Areas of Other Industrial Land -
Reserve through the Zoning Ordinance a sufficient land area outside of the industrial parks for a variety of industrial uses, so as to reduce the need for frequent rezonings and to provide a variety of choice for industries seeking sites. Land now zoned industrial in excess of such needs should be rezoned to other appropriate districts through a comprehensive zoning procedure.
3. Discourage Speculative Rezonings - Industrial rezonings for speculative purposes, where land will be held in an undeveloped state should be discouraged. Where appropriate, utilize the "use it or lose it" provisions of the Zoning Ordinance to discourage speculation.
4. Encourage Growth and Expansion of Existing Industry -
Existing industries should be considered a prime source of new employment. Their growth and expansion should be encouraged, except where they are designated as non-conforming uses.
5. Apply Locational Criteria to Industrial Districts -
Locate industrial districts at sites on or accessible to Major Arterial Roads and/or railroads, and near Towns or major population centers where public facilities are available or can be made available, or where on-site facilities are acceptable. Current industrial districts which do not meet these criteria should be changed to other zoning districts through comprehensive rezonings.

B. Transportation Plan

Article 66B, Section 3.05(a)(3), Annotated Code of Maryland requires the Comprehensive Plan to include a Transportation Plan Element, which it describes as follows:

"A transportation plan element which shall show proposals for the most appropriate and desirable patterns for the general location, character, and extent of the channels, routes, and terminals for transportation facilities, and for the circulation of persons and goods at specified times as far into the future as is reasonable. Such channels, routes, and terminals may include, without being limited to, all types of highways or streets, railways, waterways, airways, routings for mass transit, and terminals for people, goods, and vehicles related to highways, airways, waterways, and railways."

As noted above, the Transportation Plan may deal with a broad range of transportation routes, facilities and terminals for moving people, goods and vehicles. However, in a rural setting like Caroline County, transportation services are necessarily dominated by highway orientated travel, i.e., automobiles and trucks. However, other transportation opportunities do exist and should be exploited where possible.

The current highway system of Caroline County is described in detail in Volume II, Background for Planning, and consists of a network of State highways and County roads. As noted, the major highway artery through Caroline County is Maryland Route 404. Other major routes include Maryland Route 331 (East-West through Preston and Federalsburg) and Maryland Route 313/311 (North-South through Federalsburg, Denton, Greensboro, Goldsboro, Henderson and Marydel).

It appears likely that the Delaware beach resorts reached via Route 404 are poised for rapid development such as has occurred in Ocean City, Maryland in the past decade. If this occurs, then traffic will greatly increase on Route 404, the only direct access route from the Washington, D.C.-Baltimore metropolitan area.

The Denton By-Pass is now under construction and should be completed in 1987. However, all state plans for further dualization of Route 404 have been postponed at this time. It has been the continuing position of the County Commissioners that dualization of Route 404 should be given a high priority, due to the ever increasing traffic load and high accident rate experienced on this highway.

Since most right-of-way for dualization has already been acquired, land use disruptions from construction of the

project would be minimal. Dualization will further alleviate the adverse local impact of resort traffic, while improving access potential for economic development in Caroline County.

The highway system in Caroline County is critical to the success of economic development programs necessary to achieve other goals of this Comprehensive Plan. Today most new industry is serviced by truck transportation only. The excellent geographic location of Caroline County relative to major east coast markets is significant only so long as good transportation linkages exist. The complete dualization of Route 404 will be an important aspect of such linkages.

An important reminder of the importance of transportation in the local economy is the sizable trucking industry in Caroline County. This industry is centered in the Preston and Federalsburg areas.

The Planning Commission recommends the following policies for highway systems in Caroline County:

1. Dualization of Route 404 - Complete dualization of Route 404 through Caroline County from U.S. 50 to the Delaware State Line should be scheduled by the State Highway Administration as soon as possible.
2. Adoption of County Road Standards - Adoption of a design standard ordinance to establish required minimum standards for County roads should be undertaken by the County Commissioners. This will insure that improvements to the County Roads system and new roads in major subdivisions meet accepted engineering standards and provide the County with economic and safe transportation.
3. Adoption of Road Improvement Priority Program - A list of priorities for the use of limited capital improvement funds should be adopted by the County Commissioners annually, showing the proposed priorities for the next five years. The emphasis of the program should be on improving existing high volume roads with inadequate pavement, right-of-way, alignment or safety related features. The lowest priority should be placed on paving and widening low volume dirt roads in rural areas.

The other major transportation mode serving Caroline County is the railroad system. At present there is only one active rail line in Caroline County. This branch line originates in Seaford, Delaware and terminates in Cambridge. Along the way, service is provided to Federalsburg and Preston. In Federalsburg, both the Federalsburg Industrial Park and Caroline Industrial Park are served.

A second branch line runs southeasterly from Clayton, Delaware through Marydel, Henderson, Goldsboro, Greensboro, Ridgely and Denton (via a spur) to Easton. Scheduled rail service on this line was terminated several years ago.

Both of the rail lines described above are owned by the Maryland Department of Transportation, State Rail Administration.

The Clayton-Denton-Easton branch line was designated as an Area of Critical State Concern by the Maryland Department of State Planning in January, 1981, in response to a nomination by Caroline County. The designation specified four management recommendations. These included a review of local zoning to insure compatibility with potential rail activities and adequacy of industrial land along the rail line, as well as the need to encourage expanded rail use by existing and new businesses. All of these recommendations were addressed prior to the termination of rail service on the line.

The Planning Commission recommends the following policies on rail transportation in Caroline County:

1. Rail Using Industry Should Be Directed to the Cambridge Branch Line - Potential rail using industry should be directed to locations on the Cambridge Branch Line, especially the Federalsburg and Caroline Industrial Parks. It is essential that rail traffic on this line be increased to insure the continuity of future service.
2. Preserve the Clayton-Denton-Easton Line Right-of-Way - Unless permanently abandoned by the State Rail Administration, the right-of-way for the Easton-Clayton Branch Line should be protected from encroachment to preserve the option of future rail service resumption.

Mass transit services are very limited in Caroline County today, consisting primarily of vans operated by service organizations and agencies. These groups generally service only a limited clientele of persons, such as the elderly or handicapped. Recommendations for limited expansion of these transit services have been recommended but not yet implemented in the recently completed "Public Transportation Technical Study". That study is adopted as an element of this Plan as noted in the following section: "Other Plan Elements, Public Transportation Technical Study".

C. Community Facility Plan

Today Caroline County has adopted a number of functional plans relating to specific areas of public facilities and services. Where practical, it is the intent of this Comprehensive Plan to insure consistency between those functional planning efforts and comprehensive planning by adopting the separate facility plans as elements of the Comprehensive Plan.

Community facilities have an important impact on the extent and nature of growth and development. Some community facilities are prerequisites to certain types of development. Their provision will have a "leading" effect on development, and will greatly influence the magnitude and location of growth.

Other types of community facilities contribute to the overall quality of life of the County, thereby making it a more attractive location for some individuals and businesses. In turn, the existence of inadequate or obsolete community facilities burdens existing residents as well as discouraging growth and development.

The Planning Commission has adopted the following goals to guide the development of the Community Facility Plan:

1. Community facilities and services should help to retain the rural character of Caroline County.
2. Urban type community facilities and services should not be provided to the rural areas of the county. Such facilities and services are too expensive and inappropriate to the character of these areas.
3. The provision of community facilities and services should help to preserve agricultural lands and the open countryside.
4. Encourage new growth and development in a scale appropriate to a rural community, so as to enhance the quality of life through better employment, income and business opportunities.
5. Concentrate new growth and development in established growth areas, especially near the larger towns.

As noted above, most community facilities are covered by functional plans which will be adopted separately as elements of this Comprehensive Plan. Following are specific community facilities not presently included in any such functional plans, which are recommended for implementation by the Planning Commission:

1. County Health Center - Replace the existing health center facility and consolidate the offices and units of the Caroline County Health Department now scattered in various locations throughout Denton. At present the proposed site for the new facility is a parcel of State Highway Administration surplus property at the east end of Franklin Street in Denton.
2. State Offices - Employment Security Administration - This agency did not have any offices in Caroline County until 1983. An office in Easton served both Caroline and Talbot Counties, to the overall dissatisfaction of Caroline County officials. A limited office has now been established in Denton in the Armory Building. It is recommended that this office be expanded to a full-fledged employment service center equivalent to those provided other counties, and that this office be located in other permanent office facilities better suited to its needs.
3. Industrial Parks - The three publicly owned industrial parks (Federalburg, Caroline and Denton) are suitable locations for most new industry which will locate in Caroline County. Since these parks represent a planned location for industry and a major public investment, all suitable industry should be directed to these sites. The County should continue to market these properties by constructing speculative "shell buildings" as frequently as possible. As these industrial parks are developed, opportunities for small industrial parks in the other towns should be considered.

Although public water and sewerage facilities are the subject of the Comprehensive Water and Sewerage Plan, their critical role in land development mandates further comment and policy recommendations.

The policies recommended elsewhere in this Plan are intended to encourage more residential development to locate in the vicinity of the larger towns. Some of this development will be in areas immediately adjacent to the towns where immediate or future annexation and service by public water and sewerage is possible.

Other residential development, while in the vicinity of the town, will be in areas where the extension of public utilities is impractical for the foreseeable future. In addition, considerable residential development will continue to occur in rural areas in new minor subdivisions, older major subdivisions and some new major subdivisions. Individual on-site wells and septic systems are acceptable in such cases, where otherwise in conformance with health regulations.

The following policies are recommended by the Planning

Commission for the provision of public water and sewerage facilities. These policies should be incorporated in the next revision of the Comprehensive Water and Sewerage Plan, to the extent that they are not already covered:

1. Encourage Expansion of Town Systems - If commercial and industrial development is to be fostered, and residential development encouraged in and around the major towns, then expansion of their water and sewerage facilities is mandatory and should be aided wherever possible.
2. Accept On-site Systems in Appropriate Locations - Individual wells and septic systems are acceptable for rural residential developments, where they are in conformance with applicable health standards.
3. Encourage Public Facilities for Commercial and Industrial Development - These developments should, in most cases, be located where public water and sewerage facilities are available.
4. Correction of Failing Systems - Existing areas of failing septic systems or inadequate water supply should be corrected through on-site or neighborhood solutions, or if possible, by annexation into and service by a town.
5. Discourage Sanitary Districts - The County government should not create sanitary districts or public water systems to serve the unincorporated areas of Caroline County. These facilities can be more economically provided by the towns. Their provision by the County in rural areas would encourage undesirable land use patterns and a further decentralization of population.

D. Chesapeake Bay Critical Area Program

Background

In 1984 the Maryland General Assembly enacted the Chesapeake Bay Critical Area Protection Act (the "Act"). The Governor and General Assembly were prompted to take this action by the increasing evidence of a drastic decline in certain fisheries and other natural resources of the Chesapeake Bay.

Caroline County is not usually thought of by its citizens as a coastal county, having no direct frontage on either the Chesapeake Bay or the Atlantic Ocean. However, Caroline County does contain a considerable length of tidal waters: the Choptank River, Tuckahoe Creek, Marshyhope Creek, and some of their tributaries.

Because of these tidal waters, portions of Caroline County lie within the Chesapeake Bay Critical Area (Critical Area). Therefore, the Critical Area program will affect parts of Caroline County, and certain actions are mandated for the County government.

These mandates will significantly affect the process of future development for shorelines in Caroline County. There will also be major effects on the County's plans and ordinances and their implementation.

The Chesapeake Bay Critical Area Program will be developed by the County Planning Department during 1986 and 1987. Therefore, the program development will necessarily occur after the adoption of this Comprehensive Plan. However, since the Critical Area Program will have significant impacts on comprehensive planning, it is important to review and understand the implications of the program as this new Comprehensive Plan is prepared. This discussion will concentrate on those actions related to or affecting the Comprehensive Plan.

It is anticipated that the Critical Area Program, once completed, adopted by the County and approved by the Critical Area Commission, will be designated as an element of this Comprehensive Plan.

Location of the Critical Area

The Act designated the initial planning area of the Chesapeake Bay Critical Area as an area within 1,000 feet landward of State or private wetlands and the heads of tides. This initial planning boundary has been defined by the Department of Natural Resources on the State Wetlands Boundary Maps and transferred to the County's Zoning Maps.

When it submits its Critical Area Program for approval (see following discussion), the County can propose to exclude two types of areas from the Critical Area. The first type of potential excluded area is urban areas, at least 50 percent developed and not less than 60.6 acres in size, or the entire initial planning area located within the boundaries of a municipality, whichever is less.

The second type of potential excluded area is land located at least 1,000 feet from open water and separated from open water by an area of wetlands which it is found will serve to protect the tidal resources from adverse impacts of development in the excluded area.

The Maryland Department of State Planning has estimated that the Chesapeake Bay Critical Area contains 9,089 acres in Caroline County, or approximately 4.4 percent of the total County land area. See Table I-1 for the estimated land uses within the Critical Area.

The largest portion of the Critical Area in Caroline County is in agricultural use (36 percent). The next largest land uses are forestry (33 percent) and wetlands (22 percent). Only a small fraction (8 percent) of the Critical Area is in urban land uses, with most of this being residential land use.

While the size of the Critical Area is small in comparison to the overall area of Caroline County, it nonetheless includes some of the most desirable property for future residential development.

Critical Area Commission

The Act created a Chesapeake Bay Critical Area Commission, which was mandated to adopt criteria for the development of programs under the Act. The Commission has completed this work and adopted its regulations as COMAR Title 14, Subtitle 15, "Chesapeake Bay Critical Area Commission Criteria for Local Critical Area Program Development". It is now the responsibility of Caroline County to develop and implement a program consistent with these criteria.

Once the local program is developed, it must be submitted to the Commission for approval. The Commission has 90 days to approve or reject the proposed program, and is required to hold a public hearing in the County.

If a local government fails to adopt a program acceptable to the Commission, the Commission may enact the program itself.

Following approval of the local program, the Commission has

the authority to intervene in the approval procedure for classes of development projects which it has identified.

TABLE I-1
CHESAPEAKE BAY CRITICAL AREA
LAND USES BY AREA AND PERCENTAGE
CAROLINE COUNTY, MARYLAND

	Acres -----	% of C.A. -----
Outside Critical Area	197,554	--
Inside Critical Area	9,089	100
Urban	735	8
Residential	643	7
Residential Primary	459	5
Residential Secondary	184	2
On Primary Agriculture	0	0
On Primary Forest	184	2
Commercial, Industrial, Extractive	92	1
Institutional, Open Urban Land	0	0
Agriculture (No Secondary Residential)	3,305	36
Forest (No Secondary Residential)	3,029	33
Wetlands	2,020	22
Barren Land	0	0

Notes: Based on dominant land use in 2,000 foot by 2,000 foot cells (91.8 acres), rounding applied.

Source: Maryland Department of State Planning, Publication No. 85-8, Chesapeake Bay Critical Area: 1981 Land Use April, 1985.

Development Area Designations

The Commission has stated its interpretation of the Act in fairly simple terms:

1. Future growth and development should, where possible, tend to be located away from the Critical Area, and
2. Within the Critical Area any significant new growth should occur in areas already developed rather than in areas in a more natural state.

The Commission will require Caroline County to inventory the Critical Area and designate all land into one of three types of development areas:

1. Intensely Developed Areas.
2. Limited Development Areas.
3. Resource Conservation Areas.

Intensely Developed Areas are areas where residential, commercial, institutional and/or industrial uses predominate, and where relatively little natural habitat occurs. Residential density must be greater than 4 units per acre (3 units per acre if public water and sewer service is available). The area must be at least 20 acres in size or consist of the entire upland portion of a municipality, whichever is less.

New development will be permitted within the Intensely Developed Areas, subject to the following policies:

1. Improve the quality of runoff from developed areas.
2. Accommodate additional development of the type and intensity designated by the local jurisdiction provided that water quality is not impaired.
3. Minimize the expansion of Intensely Developed Areas into portions of the Critical Area designated as Habitat Protection Areas and Resource Conservation Areas.

In addition, the local Critical Area Program must address a long list of criteria designed to improve water quality and minimize impacts on the Critical Area resources. These criteria will create moderate obstacles to further development in these areas.

Limited Development Areas are those which are currently developed in low or moderate intensity uses. They also contain areas of natural plant and animal habitats, and the quality of runoff from these areas has not been

substantially altered or impaired. They shall have at least one of the following features:

1. Housing density of from one unit per 5 acres up to 4 units per acre.
2. Areas not dominated by agriculture, wetland, forest, barren land, surface water, or open space.
3. Areas having public water and/or public sewer service.

Within the Limited Development Areas new development will be permitted subject to the following policies:

1. Maintain, or if possible, improve the quality of runoff and groundwater.
2. Maintain, to the extent practicable, existing areas of natural habitat.
3. Accommodate additional low or moderate intensity development if conforming to the Critical Area criteria and if overall intensity of development is not increased beyond the level established in a particular area so as to change its prevailing character (based on current density and land use).

Extensive criteria are specified for new development. These will severely restrict future development within these areas.

Resource Conservation Areas are those characterized by nature dominated environments (wetlands, forests, abandoned fields) and by resource utilization activities (agriculture, forestry, fisheries or aquaculture). They shall have at least one of the following features:

1. Density is less than one unit per 5 acres.
2. Dominant land use is in agriculture, wetland, forest, barren land, surface water, or open space.

Policies which must be applied to the Resource Conservation Area are:

1. Conserve, protect and enhance the overall ecological values of the Critical Area, its biological productivity, and its diversity.
2. Provide adequate breeding, feeding and wintering habitats for wildlife.
3. Conserve the land and water resource base that is necessary to maintain and support land uses such as agriculture, forestry, fisheries and aquaculture.

4. Conserve the existing developed woodlands and forests for the water quality benefits they provide.

Extensive restrictive criteria are mandated for the Resource Conservation Areas. Residential development is limited to one unit per 20 acres. As a result, virtually no new development will be allowed within these areas, which comprise most of the Critical Area in Caroline County.

Area Expansions

The area of future expansion of Intensely Developed or Limited Development Areas, or both, cannot exceed an area equal to 5 percent of the County's portion of the Resource Conservation Area lands that are not tidal wetlands or federally owned. Detailed criteria governing expansions are specified.

Grandfathering

Grandfathering is a process of providing fair treatment for persons who have undertaken certain steps of the development process prior to the enactment of a new law or ordinance.

The Critical Area Criteria include grandfathering provisions. The grandfathering provisions existing as of this date are ambiguous and unreasonable in effect. They appear to nullify legally recorded subdivisions and to count the issuance of building permits against the expansion allowance. The land use and legal implications of the current grandfathering provisions will be far-reaching and costly.

Local Program Directives

The County is required to inventory or map, or both, certain resources of the Critical Area. Specific requirements include:

1. Agricultural lands.
2. Non-tidal wetlands.
3. Tidal wetlands.
4. Forest resources.
5. Sand and gravel resources.

6. Tributary streams.
7. Known threatened and endangered species habitats, and habitats of species in need of conservation.
8. Watersheds of anadromous fish spawning streams.
9. Plant and wildlife habitats.
10. Steep slopes.
11. Soils with development constraints.
12. Areas suitable for water-dependent facilities.
13. Intensely Developed, Limited Development, and Resource Conservation Areas.

The County is required to review and revise local plans, programs and regulations that are inconsistent with the intent of the policies and criteria of the Critical Area program, including:

1. Comprehensive or master plans.
2. Comprehensive water and sewerage plans.
3. Comprehensive solid waste plans and other health/environment related plans and ordinances.
4. Capital improvement programs and capital budgets.
5. Zoning ordinances and comprehensive zoning maps.
6. Subdivision regulations.
7. Growth management ordinances.

Conclusion

The Chesapeake Bay Critical Area Program will have a significant effect on Caroline County development patterns and procedures. Very little future development will occur along the tidal rivers and streams, as most of this land will be designated as Resource Conservation Areas. Development that is permitted within the Critical Area will be subjected to far more rigorous standards and complex approval procedures than currently exist.

E. Other Plan Elements

The following functional plans are recommended for adoption as elements of the Comprehensive Plan:

Plan Element: Comprehensive Water and Sewerage Plan
Prepared by: Caroline County Planning Department
Adopted by: Caroline County Commissioners
Date Adopted: April 7, 1984

Revision 1: Replacement and Addition Pages to the 1984
Caroline County Comprehensive Water and
Sewerage Plan
Prepared by: Caroline County Planning Department
Adopted by: Caroline County Commissioners
Date Adopted: May 20, 1986

Plan Element: Solid Wastes Management Plan
Prepared by: Greenhorne & O'Mara, Inc.
Adopted by: Caroline County Commissioners
Date Adopted: December 18, 1973

Revision 1: "1975 Annual Review for Caroline County Solid
Waste Management Plan"
Prepared by: W. A. Stewart Wright, Jr., County Planner
Adopted by: Caroline County Commissioners
Date Adopted: December 27, 1974

Revision 2: "1976 Annual Review for Caroline County Solid
Waste Management Plan"
Prepared by: W. A. Stewart Wright, Jr., County Planner
Adopted by: Caroline County Commissioners
Date Adopted: January 5, 1976

Revision 3: "1978 Annual Review for Caroline County Solid
Waste Management Plan"
Prepared by: Alan Visintainer, County Planner
Adopted by: Caroline County Commissioners
Date Adopted: June 6, 1978

Revision 4: "1979 Annual Review for Caroline County Solid
Waste Management Plan"
Prepared by: Alan Visintainer, County Planner
Adopted by: Caroline County Commissioners
Date Adopted: June 19, 1979

Revision 5: "1981 Annual Review for Caroline County Solid
Waste Management Plan"
Prepared by: Alan Visintainer, County Planner
Adopted by: Caroline County Commissioners
Date Adopted: July 7, 1981

Revision 6: "1984 Review and Update of the Caroline
County Solid Waste Management Plan"
Prepared by: Alan Visintainer, County Planner
Adopted by: Caroline County Commissioners
Date Adopted: December 11, 1984

Revision 7: "1986 Amendment to Caroline County Solid
Waste Plan Concerning Asbestos Disposal"
Prepared by: Vitech Services
Adopted by: Caroline County Commissioners
Date Adopted: January 7, 1986

Plan Element: Educational Facilities Master Plan
Prepared by: Vitech Services
Adopted by: Caroline County Board of Education
Date Adopted: October, 1985
Revisions: None

Plan Element: Revised Overall Economic Development Program
Prepared by: Caroline County Planning Department/
Economic Development Commission
Adopted by: Caroline County EDC
Date Adopted: February, 1986
Revisions: None

Plan Element: Comprehensive Plan for Parks, Recreation and
Open Space
Prepared by: Caroline County Recreation & Parks Dept./
Warring Associates
Adopted by: Caroline County Commissioners
Date Adopted: August 31, 1982
Revisions: None

Plan Element: Public Transportation Technical Study for
Maryland's Upper Shore Region
Prepared by: Ecosometrics, Inc.
Date: December 5, 1985
Revisions: None

VOLUME II

CAROLINE 2000
A COMPREHENSIVE PLAN
for
CAROLINE COUNTY, MARYLAND

VOLUME II: BACKGROUND FOR PLANNING

Prepared for:
CAROLINE COUNTY PLANNING COMMISSION
and
CAROLINE COUNTY COMMISSIONERS

Prepared by:
VITECH SERVICES
Denton, Maryland

May, 1986

CAROLINE COUNTY PLANNING COMMISSION

Philip E. Reed, Chairman
Dawson H. Carroll
Charles T. Dean, Sr.
D. Eugene Harris
Namon R. Palmer
Thomas R. Shipley
David F. Tribbett

COUNTY COMMISSIONERS OF CAROLINE COUNTY

Charles T. Dean, Sr., President
John S. LeGates
Lee Edward James

CAROLINE COUNTY PLANNING DEPARTMENT

Elizabeth A. Krempasky, County Planning Director
Tamala M. Holden, Administrative Assistant

CONSULTANT SERVICES

Alan Visintainer
Vitech Services

TABLE OF CONTENTS

	Page ----
VOLUME II: BACKGROUND FOR PLANNING	
Section II-1: Introduction	II-1
Section II-2: The First Comprehensive Plan (1968) . .	II-3
A. The History of Planning in Caroline County . .	II-4
B. Projections & Forecasts	II-6
Population Growth	II-6
Distribution of Population	II-8
C. Development Objectives	II-10
D. Land Use Plan	II-15
Residential Land Use	II-16
Commercial Land Use	II-18
Industrial Land Use	II-19
Park & Recreational Land Use	II-20
Agricultural Land Use	II-21
E. Highway Plan	II-22
State Highways	II-23
County Roads	II-25
F. Community Facility Plan	II-27
Public Schools	II-27
Public Library	II-29
County Health Center	II-30
Nursing Homes	II-31
Park & Recreation Facilities	II-32
Public Water Supply & Sewerage Facilities . .	II-33
F. Plan Implementation	II-34
Section II-3: Caroline County Today	II-35
A. The People	II-36
Population Growth	II-36
Population Distribution	II-46

Population Characteristics	II-52
Mobility	II-52
Age, Race & Sex	II-54
Income	II-58
B. The Economy	II-66
Employment & Labor Force	II-66
Industry	II-73
Retail and Service Business	II-78
Commuting	II-82
Agriculture	II-85
C. The Natural Resources	II-91
Resources of the Land	II-91
Topography	II-91
Soils	II-92
Agricultural Lands	II-99
Forest Lands	II-101
Minerals	II-104
Water Resources	II-105
Groundwater	II-105
Surface Water	II-107
Wetlands	II-111
Floodplains	II-114
D. The Man-Made Environment	II-116
Existing Land Use	II-116
Subdivisions	II-120
Major Subdivisions	II-120
Minor Subdivisions	II-127
Mobile Homes	II-131
Multi-Family Residential	II-141
Housing Construction	II-142
Public Facilities	II-144
Water & Sewerage Facilities	II-146
Solid Waste Disposal Systems	II-148
Educational Facilities	II-149
Industrial Parks	II-150
Parks and Recreational Facilities	II-151
Other Public Facilities	II-152
Public Library	II-152
County Health Center	II-152
Governmental Offices	II-152
County Jail	II-153
Public Works	II-153
Highway Systems	II-154

SECTION II-1

INTRODUCTION

This volume contains the accumulation of data, projections and trends which provide the factual framework for the development of the new Comprehensive Plan. Therefore, it is appropriately titled: "Background for Planning". The actual Plan together with its recommended policies and implementation are contained in Volume I: "Issues and Policies."

In addition to providing background information for the development of the new Comprehensive Plan, the author hopes that this volume will become a useful reference source on Caroline County.

SECTION II-2
THE FIRST PLAN

A. The History of Planning in Caroline County

Caroline County's first Comprehensive Plan was adopted in April, 1968 after more than five years of work by the Planning Commission. The Plan was prepared by the Commission's consultants, Harland Bartholomew and Associates, of Washington, D.C.

One of the major motivations for adopting a Comprehensive Plan came from the County Economic Development Commission. This group was charged with the responsibility of attracting new business and industry to Caroline County, and generally to promote its economic growth and development. They recognized that this could not be done without comprehensive planning and land use controls. The Economic Development Commission threatened to resign en masse in 1961 unless the County Commissioners initiated a planning effort.

Apparently this tactic worked and the County Commissioners created a Planning Commission in 1963 to begin working on a Comprehensive Plan and Zoning Ordinance. To this day Caroline County has maintained a close and healthy working relationship between its Planning and Economic Development programs.

In 1973 changes in the State planning enabling law, Article 66B of the Annotated Code of Maryland, necessitated re-adoption of the Plan. This was accomplished on January 3, 1974. No changes were made in the Plan at the time of this re-adoption.

In 1976 the Planning Commission approved an amendment to the Comprehensive Plan as a result of a request by the owners of property located near Greensboro. This area, known as the "Cooper Subdivision", was changed from a classification of "Agricultural-Rural Residential" to "Residential-Medium Density and Commercial". The amendment was approved by the Planning Commission on March 10, 1976, and adopted by the County Commissioners on March 23, 1976.

The 1976 amendment described above is the only change made to the Comprehensive Plan from the time of its adoption in 1968 to the present.

The target date for the 1968 Comprehensive Plan was 1985. During the period from its adoption through the present, the 1968 Plan provided the basis for the comprehensive zoning of Caroline County, and furthered the planning for a number of significant public facility investments. The 1968 Plan continues in effect today, although it's target date is now upon us. The Plan is therefore obsolete and must be replaced with a new Plan extending the planning horizon. The year 2000 has been chosen for this new target date.

Before beginning to write this new Comprehensive Plan, it is important to carefully study the first Comprehensive Plan. This review will show the accuracy of the forecasts and projections upon which the 1968 Plan was based, as well as how successfully the recommendations of the 1968 Plan have been accomplished. In other words, were the writers of the Plan able to correctly envision in 1968 what Caroline County would be like today? Have their plans become reality?

These questions are addressed in the following discussion. Some of the more crucial forecasts and projections made in 1968 are compared to the actual outcome, as are the recommended development objectives.

B. Projections and Forecasts

1. Population Growth

The 1968 Plan provided three population projections. The "lower estimate" was prepared by the Maryland Department of State Planning and predicted virtually stagnant population due to continued high rates of out-migration. The second "high estimate" was done by the consultant and assumed the 1950-1960 rate of natural increase, and no net migration. This second higher projection assumed that out-migration would be stabilized by the attraction of new industry, and that the high birth rates of the decade would continue.

The Plan stated that "the actual future population will probably be somewhere between the two projections, depending on how successful the county is in attracting new industry." The third, or "selected" estimate represented a middle ground and was used to develop the projections by election district. Table II-1 compares these three estimates with the actual increase in Caroline County population between 1970 and 1985.

An examination of Table II-1 indicates several important relationships. First, there was very little actual population growth in Caroline County from 1960 to 1970, and the actual 1970 population was very close to the low estimate. From 1970 to 1980 population growth was considerably greater than even the high estimate made in the 1968 Plan. Since 1980 the estimated rate of population growth has slowed to a level in between the selected and high estimates.

The result of these trends is that population growth was stagnant in Caroline County until the early 1970's. It then accelerated to a higher level than any anticipated in the 1968 Plan, before slowing in the 1980's to a rate near the upper end of the estimates.

Population growth, including the components of change, is discussed in detail in the following section: "Caroline County Today, The People".

TABLE II-1
COMPARISON OF 1968 POPULATION PROJECTIONS
TO ACTUAL POPULATION INCREASE, 1970-85

	1970 -----	% Inc 60-70 -----	1980 -----	% Inc 70-80 -----	1985 -----	% Inc 80-85 -----
Low Estimate	19,700	1.2	20,000	1.5	20,100	0.5
High Estimate	21,500	10.5	23,700	10.2	24,900	5.1
Selected	20,500	5.3	21,500(a)	4.9	22,000	2.3
Actual	19,781(b)	1.6	23,143(b)	17.0	24,000(c)	3.7

(a) Interpolated from Table 25, 1968 Plan

(b) U.S. Census

(c) Maryland Department of State Planning (Rev., Sept., 1985)

2. Distribution of Population

Perhaps more significant than the amount of total population growth is the distribution of that growth within Caroline County. Table II-2 shows the projected population change by election district compared with the actual change from 1960 to 1985:

A study of Table II-2 shows that the 1968 Comprehensive Plan forecast the greatest rate of population growth for the Third (Denton) and Fifth (Federalburg) Election Districts, which were also the two most populous Districts in 1960. For the rest of Caroline County lower growth was projected.. In the smallest and most rural district, the Eighth Election District (American Corner), an actual decrease in population was forecast. The other two smallest districts, the Seventh (Ridgely) and Sixth (Hillsboro) were projected to have only slight increases in population.

The actual growth pattern from 1960 to 1980 was in fact dramatically different. Only two districts underperformed the estimates, and these were the projected leaders, the Third and Fifth Election Districts. These two districts actually turned out to be the slowest growing areas. Every other district had a growth rate considerably higher than the rate estimated in 1968. The 1968 Comprehensive Plan had expected new growth to concentrate in the larger more populous areas. Instead, it has been scattered throughout the County in the more rural, less populous areas.

Further discussion on population distribution is contained in the following section: "Caroline County Today, The People".

TABLE II-2

COMPARISON OF POPULATION TRENDS BY ELECTION DISTRICT
1968 PROJECTIONS VS. ACTUAL, 1960 TO 1985

Election District	1960 Actual	1985		% Chg. 1960-85	
		Proj.	Actual(a)	Proj.	Actual
1. Henderson	1,739	1,890	2,430	8.7	39.7
2. Greensboro	2,744	3,020	3,530	10.1	28.6
3. Denton	4,071	5,000	4,770	22.8	17.2
4. Preston	2,405	2,770	3,440	15.2	43.0
5. Federalsburg	3,965	4,750	4,190	19.8	5.7
6. Hillsboro	1,382	1,430	1,640	3.5	18.7
7. Ridgely	1,771	1,780	2,250	0.1	27.0
8. American Corner	1,385	1,360	1,750	-1.8	26.4
County Total	19,462	22,000	24,000	13.0	23.3

(a) 1985 Actual based on Maryland Department of State Planning estimate (Sept., 1985) for Caroline County with Election District subtotals by the Caroline County Planning Dept. (pro-rated from July, 1983 estimates)

C. Development Objectives

In order to judge the success of the 1968 Comprehensive Plan, it is necessary to also look at the stated objectives of the Plan to see if these have been accomplished. The 1968 Plan included six development objectives, which were intended to form the policy basis for the overall plan.

These development objectives are listed below together with an evaluation of the success in accomplishing each objective. No judgment is made regarding the correctness of such an objective or its underlying assumptions. Instead, this discussion and evaluation focuses strictly on the question of whether or not the Planning Commission's intentions, as defined by the objectives, have been successfully accomplished.

Objective No. 1:

Industrial Development - Opportunities for new manufacturing enterprises should be provided by reserving highly accessible locations near the towns where utilities are available or can be made available. Improving the attractiveness for new industries can also be increased by guiding housing development within or adjacent to existing communities in order to increase the available labor force at a given location.

Evaluation of Objective No. 1:

- a. Since the preparation of the original Comprehensive Plan, Caroline County has adopted a Zoning Ordinance. This ordinance designates a substantial area of land as the "I-2" Light Industrial District.
- b. Most of the industrially zoned land is located near incorporated Towns and has access to major highways and/or railroad lines.
- c. Some of these industrial sites are served by public utilities (water and sewerage), and most others are reasonably accessible to such facilities.
- d. Some industrial sites originally reserved by the County Zoning Ordinance have since been annexed by the Towns. Three fully serviced industrial parks have been developed, two in Federalsburg and one in Denton.
- e. Many new industries have been attracted to these various industrial sites.
- f. New housing developments have not been guided within or

adjacent to existing communities, thereby increasing the available labor force at a given location. Instead, new housing has been widely scattered with much of it in the rural areas of the County.

- g. Objective No. 1 has been successfully accomplished with regard to the provision of reserved industrial locations. However, Objective No. 1 has not been successfully accomplished with regard to guiding development to increase the labor force at given locations. Most new population growth since 1968 has occurred in rural locations away from the towns and their industrial properties.

Objective No. 2:

Commercial Development - Concentrations of population tend to support and produce greater amounts and more varied kinds of economic activities. Retail purchasing power now being spent outside of the county can be gained, if new housing developments are guided into the areas near the county's larger towns in place of a random scattering of the population.

Evaluation of Objective No. 2:

- a. New development and population growth has not been concentrated near the larger towns, but has been randomly scattered instead.
- b. Retail activity within Caroline County continues to underperform that in the larger population and business centers in centers nearby, such as Easton, Dover, Seaford and Salisbury.
- c. Substantial retail purchasing power is drawn off to outside retail centers, especially Easton and Dover and Seaford, Delaware.
- d. There are 10 incorporated Towns within Caroline County. The percentage of total County population residing within these towns has decreased instead of increasing. None of the Towns is presently large enough to support a strong mix of retail and service businesses.
- e. Objective No. 2 has not been successfully accomplished.

Objective No. 3:

Neighborhood Development - Encourage new housing in neighborhood patterns at locations in and adjacent to the towns where public utilities (water and sewerage) are available in order to reduce pollution dangers and also lessen the costs of such systems,

as well as other municipal systems.

Evaluation of Objective No. 3:

- a. New housing has not, for the most part, occurred in neighborhood patterns in and adjacent to the towns where water and sewerage facilities are available.
- b. Most new housing development in Caroline County, including almost all of the new single-family homes, has been served by individual private wells and septic tank systems, not by public utilities.
- c. Objective No. 3 has not been successfully accomplished.

Objective No. 4:

Continue to Improve Educational Opportunities -
Recent improvements of the overall school plant, construction of the college and of the vocational high school, and plans for a new library are all illustrations of carrying out such an objective. The Plan should also endorse the continued modernization and replacement of remaining obsolete schools. Such measures will enhance the attractiveness of the county for young wage earners who might settle elsewhere in seeking broader skills.

Evaluation of Objective No. 4:

- a. The State of Maryland assumed financial responsibility in the early 1970's for most public school construction. As a result, the planned construction program in Caroline County was completed in the late 1970's with all of the school facilities either replaced with new buildings or substantially renovated.
- b. The new central Caroline County Public Library in Denton was constructed in 1970. Renovation of the Federalsburg Branch Library will be completed in 1986.
- c. Chesapeake College, only a proposal in 1968, has been successfully established as a regional institution at its Wye Mills location. The College also provides limited satellite operations within Caroline and other counties.
- d. The Board of Education during 1985 has adopted a new "Educational Facilities Master Plan" which indicated an overall satisfactory school plant for the next decade.
- e. Objective No. 4 has been successfully accomplished.

Objective No. 5:

Develop Land for Park and Recreation Purposes - The creation of a viable "recreation industry" can also assist in county-wide economic growth for visitors as well as local residents.

Evaluation of Objective No. 5:

- a. A County Recreation and Parks Advisory Board and Recreation and Parks Department have been created.
- b. A sizeable number of county and municipal park and recreation facilities have been developed, primarily using State Program Open Space funds.
- c. Martinak State Park and Tuckahoe State Park have been developed with a variety of recreational facilities.
- d. Caroline County has participated in regional tourism development programs.
- e. Objective No. 5 has been successfully accomplished with regard to the purpose of developing land for park and recreational use by local residents. These efforts have not, however, led to significant tourism development and economic impacts.

Objective No. 6:

Conserve Prime Agricultural Lands - Avoiding an unduly random pattern of urban type development throughout the county can also assist in the protection of the county's agriculturally productive lands.

Evaluation of Objective No. 6:

- a. New residential development in Caroline County since 1968 has occurred largely in randomly scattered rural locations, in both major and minor subdivisions.
- b. Commercial and industrial development in Caroline County since 1968 has occurred primarily on lands reserved for these uses inside or in proximity to the towns.
- c. Caroline County has been very successful in placing farms in the Maryland Agricultural Land Preservation program. The first phase of the program results in the creation of an agricultural preservation district which provides a temporary protection (minimum of five years). The second phase involves an easement sale to the State and is a permanent form of agricultural land preservation.

- d. While some progress has been made in preserving agricultural lands through the State program, Objective No. 6 has not been successfully accomplished, due to the scattering of new residential development in rural locations in the County. Commercial and industrial development has not had a significant adverse impact on agricultural lands.

D. Land Use Plan

The Land Use Plan element of the 1968 Comprehensive Plan provided a discussion of the various components of land use: residential, commercial, industrial, park and recreational, and agricultural. The graphic representation of the 1968 Land Use Plan is shown as Plate II-1.

The principal policy of the Land Use Plan was summarized as follows:

"In keeping with the development objectives previously identified, the foremost feature of the Plan is to encourage future growth near to or within existing town centers. Thus the only significant departure from the established pattern of development is the attempt to discourage additional linear extensions or ribbons of growth from reaching outward into the countryside. The underlying premise is one of compaction and not sprawl."

Discussion of specific types of land uses and the policies of the 1968 Plan follow.

1. Residential Land Use

Residential land use demand through 1985 was projected as 400 acres. This was based on 750 new housing units at an overall density of approximately two housing units per acre. The 1968 Plan reserved over 3,000 acres of additional land to provide for this residential growth, or several times the minimum projected land requirement.

Actual residential land demand has far exceeded this projection. Major subdivisions alone (those containing 5 or more lots) recorded from 1968-1985 consumed 1,141 acres. Minor subdivisions have consumed considerable additional acreage.

This higher than expected residential land consumption is due to several factors. First, total residential development (in units constructed) has been much higher than the projection of 750 new units made in 1968. Actual construction of just single family units and mobile homes in the unincorporated County was 2,469 units between 1970 and 1985. In addition, average lot size has considerably exceeded the projection of one-half acre per unit made in the 1968 Plan. Actual average lot size since 1968 in major subdivisions has been 1.90 acres. Minor subdivision lots have averaged approximately 2.8 acres in size since 1977.

GENERAL LAND USE PLAN 1985

LEGEND

- PRIMARY HIGHWAY
- SECONDARY HIGHWAY
- AGRICULTURE-RURAL RESIDENTIAL
- RESIDENTIAL LOW DENSITY
- RESIDENTIAL INTERMEDIATE DENSITY
- RESIDENTIAL MEDIUM DENSITY
- COMMERCIAL CENTER
- INDUSTRIAL DISTRICT
- PARKS AND RECREATION

PLATE II-1

From: 1968 Caroline County Comprehensive Plan

HARLAND BARTHOLOMEW AND ASSOCIATES
PLANNERS
WASHINGTON D. C.

CAROLINE COUNTY MARYLAND

CAROLINE COUNTY PLANNING COMMISSION

DENTON MARYLAND

II-17

2. Commercial Land Use

No substantial commercial acreage demand was projected. The Plan encouraged the expansion of existing commercial districts. The major policy objective was described as follows:

"A major objective of the Plan is to strengthen the central business districts of existing towns, particularly Denton and Federalsburg. Being well located in the county, these centers can evolve into regional shopping centers for the county with far greater diversity of shops and services than presently offered. The economic findings show that much local purchasing power is currently going outside of the county. A potential exists for capturing such purchasing power. By preventing further sprawling decentralization of housing and commercial functions, the aim of the Plan can be accomplished. . ."

Unfortunately, the situation as described above has changed little during the intervening 17 years. There has been little growth in central commercial centers in Caroline County and continued loss of substantial purchasing power to outside retail and service centers, notably Easton and Salisbury, Maryland, and Seaford and Dover, Delaware. These trends are discussed further in Section 3B, "Caroline County Today - The Economy, Retail and Service Business".

Central commercial uses were intended to occur primarily within the existing commercial districts of the Towns. In addition, a limited amount of land has been delineated for these commercial uses as the "C-2" General Commercial Districts on the Comprehensive Zoning Map.

The plan also called for local neighborhood commercial centers easily accessible to residential areas and serving populations of 500 to 1,000 families. These areas were generally delineated as the "C-1", Neighborhood Commercial Districts on the Comprehensive Zoning Map.

Highway-orientated commercial uses, especially along Maryland Route 404, were also identified. These have generally been delineated as the "HC", Highway Commercial Districts on the Comprehensive Zoning Map.

3. Industrial Land Use

The Plan's authors felt that Caroline County's potential for attracting industry was limited. Nevertheless, the Plan provided for increased industrial land demand reflecting the trend to larger lots, one story buildings and planned industrial parks.

Sites were designated adjoining the main towns and along key highway and by-pass routes, in locations where public water and sewer service could be provided. Parts of Maryland Route 404, the Federalsburg By-Pass and the future Denton By-Pass were specifically highlighted.

These areas were subsequently delineated into three industrial districts on the Comprehensive Zoning Map. In 1982 these three districts were consolidated into a single industrial district, the "I-2", Light Industrial District.

4. Park and Recreational Land Use

The Plan forecast increasing demand for outdoor recreational activities, facilities and land. Development of potential water-orientated park sites along the Choptank River and small lakes were proposed.

Since that time the County has adopted the 1982 Recreation and Park Plan, which will soon be revised and updated.

5. Agricultural Land Use

The Plan projected that agriculture would continue to be a vital industry and should be protected and encouraged by proper land use controls. The policy objective was further stated as follows:

"The importance of agricultural productivity in the county's economy serves to underscore the requirement that prime farm land not be needlessly displaced. A continued intrusion of scattered subdivisions in farm areas will, however, hamper the assembly of large size farm holdings which is a requirement of modern farming operations.

The Land Use Plan recognized this by calling for the centralization of population around existing towns. It also proposes that prime agricultural lands be protected from sprawling, scattered urban-type development by restricting these areas to agricultural, recreational and open residential development on large parcels of land. Since densities would be low in these areas, urban services and facilities would not be required thus eliminating local governmental expenditures. The reservation of land for agriculture and related uses is essential to the implementation of an effective land use plan for the county."

This policy was to be implemented through the delineation of the "R" Rural District on the Comprehensive Zoning Map. However, the Rural District as established in the Zoning Ordinance allows residential development with a minimum lot size of one acre. Therefore, residential subdivisions have been permitted throughout the Rural Districts in direct contradiction to the intended policy of the 1968 Plan.

E. Highway Plan

The Highway Plan element of the 1968 Comprehensive Plan pointed out the need to distinguish between the internal and external transportation needs of Caroline County. The needs of the resident population could be satisfied by a well maintained highway system providing good linkage and adequate geographic coverage for internal travel.

On the other hand, it was recognized that an adequate transportation system must provide for good approaches to Caroline County as well as easy passage through the County for externally generated traffic. The planners felt that the absence of adequate highways for this external traffic would tend to retard development while causing local traffic nuisances.

The 1968 Highway Plan is graphically portrayed on Plate II-2. The text of the Highway Plan was divided into two sections dealing with State Highways and County Roads.

1. State Highways

In the 1968 Comprehensive Plan, Maryland Route 404 was recognized as the most severe problem facing the County's highway system, due to the increasing traffic demand from resort travel. At that time the "20-Year Needs Study" of the State Roads Commission called for two major projects to improve Route 404. The first was dualization from the Queen Anne's County line to the Delaware state line. The second was construction of a by-pass around Denton.

The 1968 Plan endorsed the northern alignment of the Denton By-Pass as "the most favorable location which will assure compatible traffic handling objectives with local community objectives". It was felt that the northern route would provide the maximum exposure or visibility of the Town of Denton without adverse effects on prime growth neighborhoods, that it would not impede the direction of Town growth, and that it could benefit growth by providing increased access to the Town's industrial areas.

This endorsement of the northern by-pass route became a critical factor affecting the final route selection by the State Highway Administration during the late 1970's. The final approved location is very close to that shown on the 1968 Highway Plan (Plate II-2).

In 1984, 16 years after the adoption of the Comprehensive Plan, construction finally began on the Denton By-Pass utilizing the northern route. Construction should be completed in 1987.

HIGHWAY PLAN - 1968

L E G E N D

EXISTING ROADS

- ARTERIAL
- COLLECTOR
- LOCAL

DASHED LINE INDICATES UNSURFACED ROAD (1966)

PROPOSED ROADS

- STATE HIGHWAY SYSTEM
PLANNED NEW CONSTRUCTION
- PLANNED NEW COUNTY ROAD
- SURFACING OR OTHER UPGRADING
OF COUNTY ROAD
- ★ EXPANDING OR POTENTIAL
TRAFFIC GENERATOR

HARLAND BARTHOLOMEW AND ASSOCIATES
PLANNERS
WASHINGTON D. C.

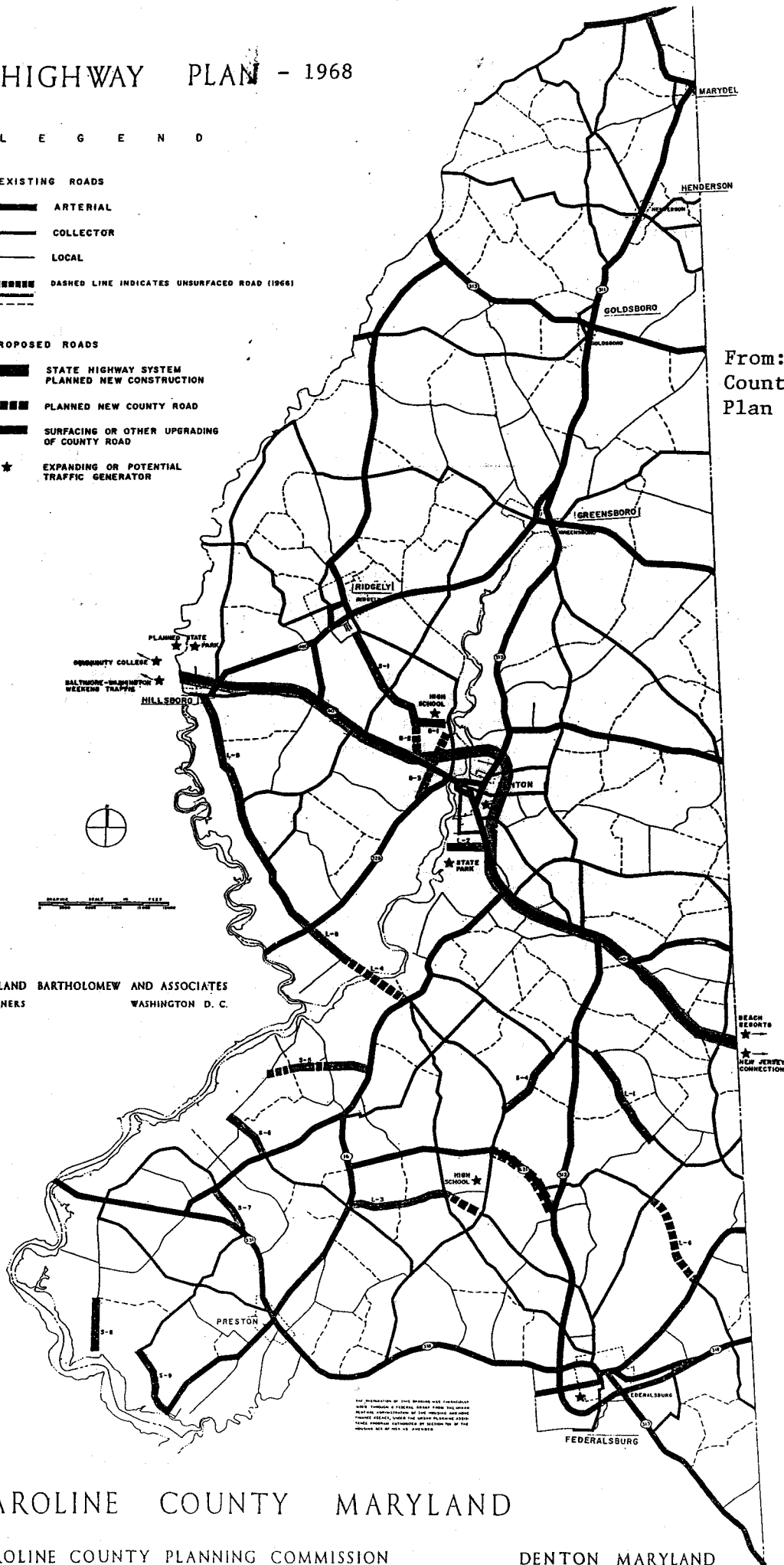
CAROLINE COUNTY MARYLAND

CAROLINE COUNTY PLANNING COMMISSION

DENTON MARYLAND

PLATE II-2

From: 1968 Caroline
County Comprehensive
Plan



II-24

2. County Roads

The 1968 Plan outlined a comprehensive program of improvements to the County Roads system, including both short and long term improvement projects. These are outlined below.

Short term projects were identified and warranted mainly to improve inter-county access to the two high schools, and to "open up riverfront development and recreational opportunities. These projects were:

1. Central Avenue to North Caroline High - Pave and relocate portions of this road. This work has been accomplished.
2. North Caroline Access Road - Construct a new road from Central Avenue to Route 404. Nothing was done to further this project, and it is no longer a County priority.
3. River Road - Construct a new road connecting Md. Route 328 and River Road, and extending up River Road to North Caroline High. This has been partially accomplished by work associated with the new Choptank River bridge and Denton By-Pass. However, River Road has not been improved north of the By-Pass. This remains a County priority.
4. Jones Corner Road - Widen and pave between American Corner Road and Md. Route 313, in order to improve access to Colonel Richardson High. This project has been completed.
5. Gilpins Point Access - Pave Wilkins Roads and construct a new road in the vicinity of Ivans Road to Grove Road to improve waterfront access, development potential and recreational access. Wilkins Road has been paved. No other work has been done on this project, and it is no longer a County priority.
6. Choptank River Area Access - Pave four roads in Preston area including:
 - a. Grove Road west of Md. Route 16 (completed).
 - b. Tanyard Road north of Md. Route 331 to Md. Route 578 (completed).
 - c. Tanyard Road south of Skeleton Creek Road to Frazier Point (not done).
 - d. Poplar Neck Road east of Choptank Village (not done).

Long term projects were listed without an indication of priority. This was an overly ambitious program with many of the projects not justified or feasible:

1. Improved East-West Access - Pave Dion Road east of Iron Gate Road to Jester Road. This project has been completed.
2. Martinak State Park Access Road - Upgrade the capacity of Deep Shore Road leading to the park. This project has not been done, and is not needed at present.
3. Improve Colonel Richardson High School Access - Upgrade Grove Road to provide better access to Colonel Richardson and anticipated development near the school. This project has not been done, and is not justified at present.
4. Choptank River Crossing - New bridge over Choptank River south of Williston to improve East-West linkage. This project has not been done, and is not justified economically or environmentally.
5. Improved East-West Linkage - Upgrade and extend Tuckahoe Road to serve the proposed new bridge, and to facilitate development opportunities along Tuckahoe Creek. This project has not been done, and is not justified.

F. Community Facility Plan

The 1968 Comprehensive Plan outlined a Community Facility Plan element intended to prepare the County for the expected growth in population, commerce and industry. The geographic location of facility programs identified in the 1968 Plan are shown on Plate II-3.

1. Public Schools

The largest public facility program outlined in the 1968 Comprehensive Plan was the continued modernization of the public school system. The then existing physical plant facilities were evaluated and public school construction and replacement priorities were recommended. These recommendations were later incorporated in the School Facilities Master Plan adopted by the Board of Education in October, 1972.

This construction and improvement program was carried out during the 1970's when four new elementary schools were constructed, and substantial additions or renovations were made to four other schools (one elementary, one middle and two high schools). The completion of this construction program has left Caroline County with a relatively modern physical plant.

Due to the "baby bust" or declining birth rates since the late 1960's, the enrollment projections made in 1968 have proven to be far too high. Projected total public school enrollment in 1985 was 5,280 pupils (grades 1-12). Actual 1985 enrollment in grades 1-12 was 3,975, or 25 percent below the projected level. K-12 enrollment in 1985 was 4,305 pupils. Despite the substantial increase in County population during this period, public school enrollment in Caroline County today is substantially below the level of 1965.

COMMUNITY FACILITIES PLAN = 1968

LEGEND

- PLANNED
EXISTING
UNDEVELOPED
WATER
TO BE
REMOVED
TO BE
REMOVED
- ■ ELEMENTARY SCHOOL
 - ■ JUNIOR HIGH SCHOOL
 - ■ SENIOR HIGH SCHOOL
 - ◆ ◆ HEALTH CENTER
 - ◆ ◆ NURSING HOME
 - PUBLIC LIBRARY
 - COUNTY OFFICES
 - △ FIRE STATION
 - ↓ PUBLIC LANDING
 - COUNTY, STATE OR NATIONAL PARK

PLATE II-3

From: 1968 Caroline County Comprehensive Plan

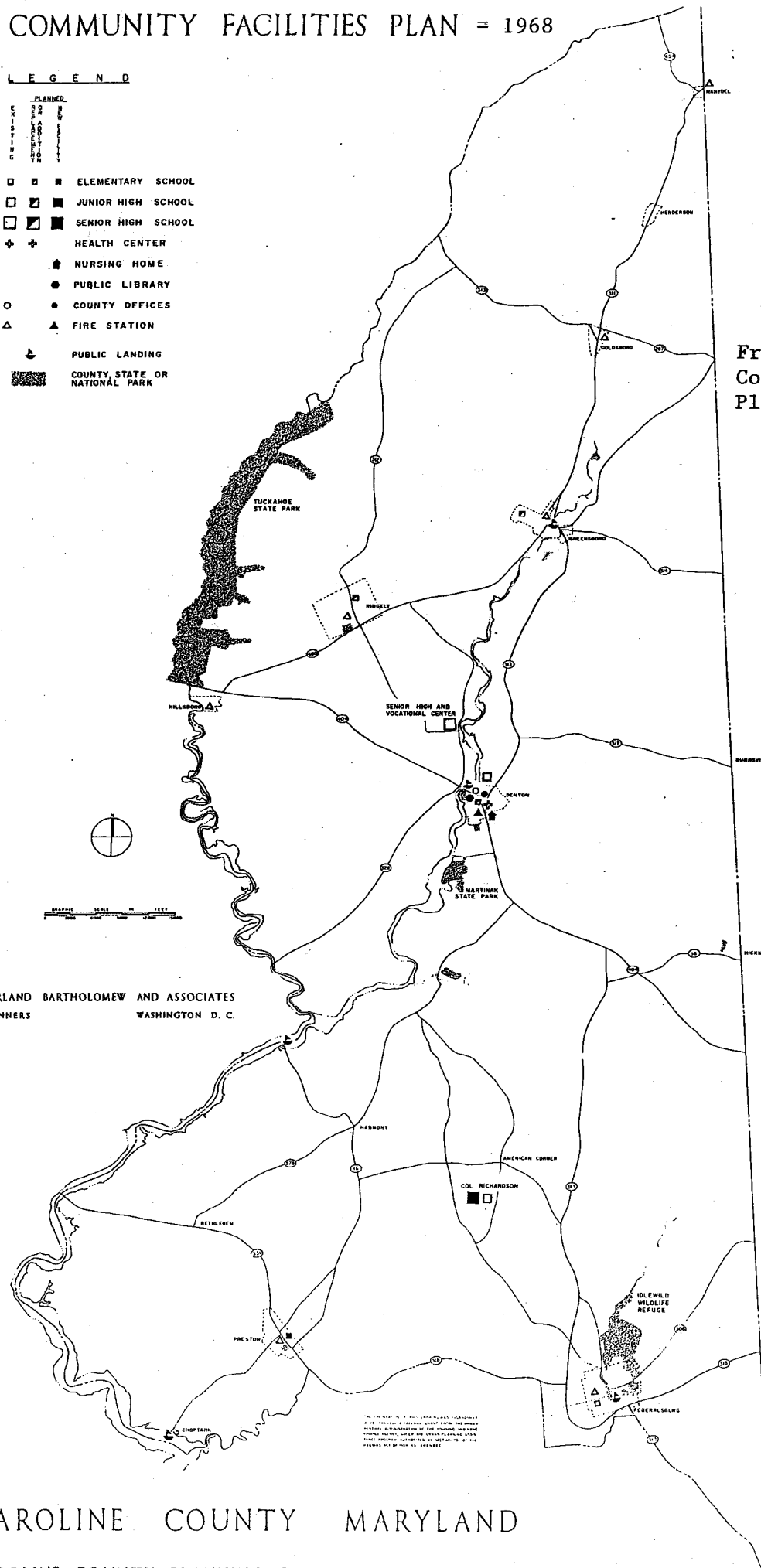
HARLAND BARTHOLOMEW AND ASSOCIATES
PLANNERS
WASHINGTON D. C.

CAROLINE COUNTY MARYLAND

CAROLINE COUNTY PLANNING COMMISSION

DENTON MARYLAND

II-28



THE PLANNING OF A COMMUNITY FACILITIES PLAN IS A SERVICE OF THE CAROLINE COUNTY PLANNING COMMISSION. THE PLANNING COMMISSION IS A VOLUNTARY ORGANIZATION OF THE COUNTY'S VARIOUS PLANNING AGENCIES, UNDER THE CHAIRMANSHIP OF THE COUNTY PLANNING COMMISSION. THESE PLANNING AGENCIES ARE: THE CAROLINE COUNTY PLANNING COMMISSION, THE CAROLINE COUNTY BOARD OF EDUCATION, THE CAROLINE COUNTY BOARD OF HEALTH, THE CAROLINE COUNTY BOARD OF SOCIAL SERVICES, THE CAROLINE COUNTY BOARD OF ZONING, THE CAROLINE COUNTY BOARD OF UTILITIES, THE CAROLINE COUNTY BOARD OF TRANSPORTATION, THE CAROLINE COUNTY BOARD OF ENVIRONMENTAL AFFAIRS, THE CAROLINE COUNTY BOARD OF ECONOMIC DEVELOPMENT, THE CAROLINE COUNTY BOARD OF CULTURAL AFFAIRS, THE CAROLINE COUNTY BOARD OF RECREATION, THE CAROLINE COUNTY BOARD OF SENIOR SERVICES, THE CAROLINE COUNTY BOARD OF YOUTH SERVICES, THE CAROLINE COUNTY BOARD OF VETERANS SERVICES, THE CAROLINE COUNTY BOARD OF RELIGIOUS SERVICES, THE CAROLINE COUNTY BOARD OF PROFESSIONAL SERVICES, THE CAROLINE COUNTY BOARD OF BUSINESS SERVICES, THE CAROLINE COUNTY BOARD OF ARTS SERVICES, THE CAROLINE COUNTY BOARD OF MUSIC SERVICES, THE CAROLINE COUNTY BOARD OF THEATRE SERVICES, THE CAROLINE COUNTY BOARD OF FILM SERVICES, THE CAROLINE COUNTY BOARD OF TELEVISION SERVICES, THE CAROLINE COUNTY BOARD OF RADIO SERVICES, THE CAROLINE COUNTY BOARD OF PUBLICATION SERVICES, THE CAROLINE COUNTY BOARD OF INFORMATION SERVICES, THE CAROLINE COUNTY BOARD OF COMMUNICATION SERVICES, THE CAROLINE COUNTY BOARD OF TRANSPORTATION SERVICES, THE CAROLINE COUNTY BOARD OF UTILITIES SERVICES, THE CAROLINE COUNTY BOARD OF ENVIRONMENTAL SERVICES, THE CAROLINE COUNTY BOARD OF RECREATION SERVICES, THE CAROLINE COUNTY BOARD OF SENIOR SERVICES, THE CAROLINE COUNTY BOARD OF YOUTH SERVICES, THE CAROLINE COUNTY BOARD OF VETERANS SERVICES, THE CAROLINE COUNTY BOARD OF RELIGIOUS SERVICES, THE CAROLINE COUNTY BOARD OF PROFESSIONAL SERVICES, THE CAROLINE COUNTY BOARD OF BUSINESS SERVICES, THE CAROLINE COUNTY BOARD OF ARTS SERVICES, THE CAROLINE COUNTY BOARD OF MUSIC SERVICES, THE CAROLINE COUNTY BOARD OF THEATRE SERVICES, THE CAROLINE COUNTY BOARD OF FILM SERVICES, THE CAROLINE COUNTY BOARD OF TELEVISION SERVICES, THE CAROLINE COUNTY BOARD OF RADIO SERVICES, THE CAROLINE COUNTY BOARD OF PUBLICATION SERVICES, THE CAROLINE COUNTY BOARD OF INFORMATION SERVICES, THE CAROLINE COUNTY BOARD OF COMMUNICATION SERVICES.

2. Public Library

The 1968 Plan called for the construction of a new Caroline County Public Library on Market Street in Denton. Construction of this facility was begun shortly thereafter and the building was completed and occupied in 1970. Roof, energy conservation and HVAC system improvements were made to the building in 1982.

3. County Health Center

The 1968 Plan identified the Health Center site in Denton as overcrowded and recommended construction of an addition. No action has been taken on this recommendation. The Health Center has grown even more inadequate during the intervening years with the steady expansion of public health programs. Today the Health Department occupies its main building on Franklin Street in Denton, as well as the Goldsborough House on the Courthouse Green and leased space in three private office buildings.

4. Nursing Homes

At the time of the 1968 Comprehensive Plan there was only one small licensed nursing home facility in Caroline County, an 18 bed facility in Greensboro which was rated as non-conforming with State standards. The Plan endorsed the proposal for a new nursing home to be constructed on Kerr Avenue in Denton.

Shortly after adoption of the Plan, work was begun on the Caroline Nursing Home, a 90 bed skilled care facility. Although not a part of the 1968 Plan, a second skilled nursing home has recently been completed at the Wesleyan Health Care Center in Denton.

5. Park and Recreation Facilities

The 1968 Comprehensive Plan defined two potential purposes for outdoor recreation in Caroline County:

1. To provide recreational opportunities, both active and passive, for the local population.
2. To serve as a basic industry.

The planners felt that development of recreation in the county offered an opportunity to both meet local needs and to develop a stronger economy based on tourism and recreation. The two major recreational and tourism assets upon which such a program would be based were identified as:

1. The County's rivers, consisting of the Choptank River and Tuckahoe Creek.
2. The County's central location on the Delmarva Peninsula.

To take full advantage of these assets, the 1968 Plan recommended the development of recreational areas and facilities to serve residents and all segments of the tourist and vacation market generated by residents of the Washington-Baltimore metropolitan area. Particular emphasis was placed on riverfront development, including the acquisition and development of small water-oriented sites.

Gradual progress has been made in developing recreational facilities as outlined in the 1968 Plan. In 1987 the Recreation and Park Plan is scheduled for a complete review and revision, which will include the development of new priorities.

6. Public Water Supply and Sewerage Facilities

The 1968 Plan identified public water supply and sewage disposal as the facilities which most affect development. The Plan recommended better coordination between the County and municipalities to provide both water and sewerage to developed areas adjoining the present corporate limits of the larger towns.

Since the writing of the 1968 Plan, the sewage treatment facilities of the five largest towns (Denton, Federalsburg, Greensboro, Preston and Ridgely) have been upgraded and are now adequate for the existing incorporated areas.

The 1968 Plan discussed the pollution dangers inherent in use of individual septic systems in areas of poorer soils, but acknowledged that residents are often reluctant to agree to annexation. One reason cited was the then common policy of providing town water and sewerage services outside of corporate limits for nominal costs. This practice has since ended and today all of the towns have policies prohibiting such external extensions.

Also discussed were the potential problems of trying to serve outlying developments by sanitary districts. The plan concluded that the waste disposal function should remain a municipal responsibility:

"The county government's role or policy in providing sewerage systems in suburban areas where they are needed should, therefore, be directed toward encouraging the annexation of outlying built-up areas into the incorporated town."

This recommendation has been the County Commissioners' adopted policy regarding sanitary districts and sewerage services to the present date.

G. Plan Implementation

The Planning Commission in 1968 recommended the following actions to implement the Comprehensive Plan:

1. Zoning - A zoning ordinance was adopted in 1967 as part of the planning program.
2. Subdivision Regulations - A subdivision ordinance was prepared as part of the planning program. However, subdivision regulations were not adopted in Caroline County until 1972, after considerable subdivision activity had occurred. These early regulations were weak and amended repeatedly until a new stronger ordinance was adopted in 1980.
3. Administration - The need for establishing planning as a local governmental process was outlined. The Planning Commission remained in operation after adoption of the Plan, and continues to gain experience. Professional staffing for the Commission was first provided in 1973.

SECTION II-3

CAROLINE COUNTY TODAY

A. The People

Population Growth

For most of the 20th Century, Caroline County has had a relatively stable or declining population typical of many rural areas. As seen on Table II-3, County population reached a high of 19,216 in 1910. It then declined during the next two decades before beginning a gradual recovery. It was not until 1960 that the County population once again reached the 1910 level.

The 1960's was a decade that saw the beginning of significant subdivision activity, and the beginning of planning and zoning in Caroline County. However, population growth remained low during the decade. In 1960 the County population was 19,462. In 1970 it was 19,781, an increase of only 319 persons, and equivalent to an average annual growth rate of less than 0.2 percent.

Average annual growth rates for the County from 1900 to 1985 are shown on Table II-4. Election district growth rate figures are shown for 1930 to 1985.

Beginning in the 1970's, the rate of population growth increased dramatically to an annual average of 1.7 percent, and the total County population grew to 23,143 in 1980. This growth was relatively uniform throughout Caroline County. All districts had average annual growth of between 1.6 and 2.4 percent except for the 5th Election District (Federalburg), which had only 0.3 percent average annual population growth.

The total increase of 17 percent in Caroline County's population in the 1970's is more than twice the rate of any other decade since 1910. The growth rate was greater than that of the State of Maryland and five of the other eight Eastern Shore Counties. See Table II-5 for comparisons to 1970-80 growth rates of other Eastern Shore and Delaware counties.

There are a variety of reasons for this recent increase in the population of Caroline County. In part it is linked to the overall growth of the Eastern Shore resulting from the improved access provided by the Bay Bridge. This has resulted in economic and population growth throughout the Shore.

Additional factors are the national trends toward early retirement, the increasing desire of many young adults to live in rural settings and the increase in permanent manufacturing employment in Caroline County.

TABLE II-3

HISTORICAL POPULATION GROWTH, 1900 - 1985

CAROLINE COUNTY, MARYLAND

Election Dist.	1900	1910	1920	1930	1940	1950	1960	1970	1980	1985
1. Henderson				1,711	1,568	1,627	1,739	1,887	2,338	2,430
2. Greensboro				2,570	2,445	2,637	2,744	2,817	3,371	3,530
3. Denton				3,300	3,255	3,563	4,071	3,771	4,595	4,770
4. Preston				2,291	2,241	2,201	2,405	2,675	3,293	3,440
5. Federalsburg				2,731	3,348	3,520	3,965	4,037	4,136	4,190
6. Hillsboro				1,502	1,515	1,447	1,382	1,313	1,565	1,640
7. Ridgely				1,839	1,786	1,842	1,771	1,882	2,178	2,250
8. American Corner										
				1,413	1,391	1,397	1,385	1,399	1,667	1,750
County Total	16,248	19,216	18,652	17,387	17,549	18,234	19,462	19,781	23,143	24,000

Source: U.S Bureau of the Census (1900 - 1980)
 1985 Population Estimate by Maryland Dept. of State Planning (September, 1985)

1985 Election District populations derived from Caroline County Planning Department,
 July, 1983

TABLE II-4

HISTORICAL POPULATION GROWTH, 1900 - 1985

ANNUAL RATE OF CHANGE (PERCENT)

CAROLINE COUNTY, MARYLAND

Election District	1900- 1910	1910- 1920	1920- 1930	1930- 1940	1940- 1950	1950- 1960	1960- 1970	1970- 1980	1980- 1985
1. Henderson				-0.8	0.4	0.7	0.6	2.4	0.8
2. Greensboro				-0.5	0.8	0.4	0.3	2.0	0.9
3. Denton				-0.1	0.9	1.4	-0.3	2.2	0.8
4. Preston				-0.2	-0.2	0.9	1.1	2.3	0.9
5. Federalburg				2.2	0.5	1.3	0.2	0.3	0.3
6. Hillsboro				0.1	-0.4	-0.5	-0.5	1.9	1.0
7. Ridgely				-0.3	0.3	-0.4	0.6	1.6	0.7
8. American Corner				-0.2	-0.1	-0.1	0.1	1.9	1.0
County Total	1.8	-0.3	-0.7	0.1	0.4	0.7	0.2	1.7	0.7

Source: U.S Bureau of the Census (1900 - 1980)
 1985 County Total Population Estimate by Maryland Dept. of State Planning
 (September, 1985)

TABLE II-5
COMPARATIVE POPULATION GROWTH
CAROLINE COUNTY VS. OTHER MARYLAND & DELAWARE COUNTIES

	1980 Population -----	Percent Chg. 1970-1980 -----
State of Maryland	4,216,446	7.5
CAROLINE COUNTY	23,143	17.0
Cecil County	60,430	13.4
Dorchester County	30,623	4.1
Kent County	16,695	3.4
Queen Anne's County	25,508	38.5
Somerset County	19,188	1.4
Talbot County	25,604	8.1
Wicomico County	64,540	19.0
Worcester County	30,889	26.4
State of Delaware	595,225	8.6
Kent County	98,219	19.9
Sussex County	98,004	22.0

Source: 1970 and 1980 U. S. Census

Another significant factor in this population growth has been the development of significant employment opportunities in neighboring counties in both Maryland and Delaware (such as Dover Air Base, DuPont in Seaford and Black and Decker in Easton). This has enabled Caroline residents who might previously have moved to find employment to continue to live in the County and commute to their jobs. It has also enabled some of these workers to re-locate their residences to Caroline County.

A significant demographic characteristic of Caroline County during this recent period has been the parallel trends of population growth and increasing rate of commuting to jobs outside the County. In 1960, 25.3 percent of the County labor force commuted to outside jobs. By 1970 this figure had increased to 34.6 percent. The rate of commuting increased again to 42.2 percent in 1980. The result is that Caroline has increasingly become a bedroom community.

It is obvious that Caroline County is considered an attractive place to live, even if residence here entails the need to travel outside the County for employment. Further details on commuting patterns follow in Section II-3.B: "Caroline County Today - The Economy, Commuting".

Components of population change from 1960 through 1983 are shown on Table II-6. During the 1960's, Caroline County experienced a net out-migration of 780 persons. This is typical of many rural areas where many young adults left for better job opportunities elsewhere. Natural increase, the net gain of births over deaths was enough to give the County a slight population gain despite the net out-migration.

A reversal of the out-migration trend occurred between 1970 and 1980 when Caroline County experienced a net in-migration of 2,937 persons. Natural increase declined to 425 persons during this decade, reflecting the decline in birth rates.

Especially significant during the 1970's was the increase in the population between ages 15 and 35, the prime working age population. This was due to both the maturing of the youth born during the baby boom, as well as in-migration of young adults. This indicates both an increase in local job opportunities, as well as development of the "bedroom community" factor discussed above. There was also a noticeable increase in the population over age 60, reflecting the attractiveness of Caroline County to retirees.

Table II-6 shows the increasing birth rate during the 1980-1983 period, as well as slowing net migration. Additional details on migration flows are shown on Table II-7. This table indicates that Caroline County received sizeable net in-migration from the rest of the State of Maryland, especially the Baltimore Region and neighboring

Queen Anne's and Talbot Counties. There was also a sizeable out-migration to the neighboring State of Delaware. Overall, Caroline County experienced a net in-migration of 115 persons during this period.

It should be noted that this time period (1980-1983) was one of high interest rates and very low levels of new home construction in Caroline County. Another factor in the migration flow to Delaware may have been the greater availability of mobile home sites there.

Recent estimates of population growth by the Maryland Department of State Planning indicate a slowing of the growth rate of Caroline County since 1980. Current projections of the Maryland Department of State Planning (September, 1985) estimate the 1985 population to be 24,000.

The Maryland Department of State Planning projects that Caroline County will continue to grow in the coming decades, although at a somewhat slower rate than in the recent past. These projections are shown in Table II-8. According to the projections, Caroline County population in the Year 2000, the target year for this Comprehensive Plan, will be 26,600.

Components of change for the projected population are shown in Table II-9. Natural increase (births minus deaths) will gradually decrease to near equilibrium levels in 2005. Net migration is projected to remain positive and relatively stable throughout the entire projection period.

TABLE II-6
COMPONENTS OF POPULATION CHANGE, 1960 - 1983
CAROLINE COUNTY, MARYLAND

Component of Change -----	1960-1970 -----	1970-1980 -----	1980-1983 -----
Natural Increase			
Births	NA	2,972	1,383
Deaths	NA	2,547	1,026
Net Natural Increase	1,099	425	357
Migration			
Intra-State	NA	NA	706
Inter-State	NA	NA	-591
Net Migration	-780	2,937	115
Total Population Change	319	3,362	472

Source: U.S. Census, 1960, 1970 & 1980
Maryland Department of State Planning, March, 1984 and
January 15, 1985

TABLE II-7
MIGRATION FLOWS, 1980 - 1983
CAROLINE COUNTY, MARYLAND

Source/Destination	In-Migration From	Out-Migration To	Net Migration
State of Maryland	2,589	1,883	706
Baltimore Region	493	158	335
Suburban Washington	28	21	7
Upper Eastern Shore	1,229	965	264
Kent County	0	20	-20
Queen Anne's Co.	435	267	168
Talbot County	794	678	116
Lower Eastern Shore	515	492	23
Dorchester Co.	467	420	47
Wicomico County	48	72	-24
Other Maryland Cos.	324	247	77
State of Delaware	585	1,078	-493
Regions in U. S.	818	851	-33
North East	0	158	-158
North Central	0	50	-50
South	383	493	-110
West	0	59	-59
Not Specified	494	91	403
Foreign	16	81	-65
TOTAL	4,008	3,893	115

Source: Maryland Department of State Planning, January 15, 1985,
from IRS Based Migration Tabulations

TABLE II-8
POPULATION PROJECTIONS, 1980 - 2005
CAROLINE COUNTY, MARYLAND

Year	Household Population	Group Qtr. Population	Total Population
-----	-----	-----	-----
1980	22,870	273	23,143
1985	23,734	266	24,000
1990	24,741	259	25,000
1995	25,629	271	25,900
2000	26,310	290	26,600
2005	26,901	299	27,200

Source: Maryland Department of State Planning, September, 1985.

TABLE II-9
PROJECTED COMPONENTS OF POPULATION CHANGE, 1980 - 2005
CAROLINE COUNTY, MARYLAND

Period -----	Births -----	Deaths -----	Net Migration -----	Net Chg. Group Qtr -----	Total Change -----
1980-1985	1,814	1,327	377	-7	857
1985-1990	1,846	1,394	552	-7	1,000
1990-1995	1,757	1,464	595	12	900
1995-2000	1,667	1,525	542	19	700
2000-2005	1,617	1,490	566	9	600

Source: Maryland Department of State Planning, September, 1985

Population Distribution

A significant demographic feature of Caroline County is the absence of concentrated population. Although the County contains 10 incorporated towns and many unincorporated villages or "corners", individually and in total they contain only a small fraction of the County population. The largest towns, Denton and Federalsburg, both have approximately 2,000 residents. All 10 incorporated towns combined contained only 31.4 percent of the County population in 1980. This was a decline from 34.0 percent of total County population in 1970.

As a result of this pattern of dispersed housing, no single town dominates the commercial or cultural life of the County. Unlike many neighboring counties, there is no dominant town with a population large enough to support a diversified retail and service base.

Population of Caroline County in 1970 and 1980 by election district and incorporated town is shown on Table II-10. In 1980 the largest district was the 3rd District (Denton area). The fastest growing between 1970 and 1980 was the 1st District (Henderson area), followed by the 4th District (Preston area).

Of the 10 incorporated towns, the 5 largest (Denton, Federalsburg, Greensboro, Preston and Ridgely) contained 6,563 residents in 1980, or 90 percent of the municipal population. These five towns operate municipal water and sewerage systems. The remaining 5 incorporated towns (Goldsboro, Henderson, Hillsboro, Marydel and Templeville) do not now operate water and sewerage systems, and are unlikely to do so in the foreseeable future.

As discussed previously, the County's first Comprehensive Plan was prepared in 1968 and forecast that most population growth would occur in the most populous election districts, the Denton and Federalsburg areas. The Plan projected very little or declining growth in the more rural parts of the County.

As indicated, the actual occurrence of population growth from 1960-1985 was considerably different than the forecasts. Rather than being the fastest growing areas, the Denton and Federalsburg regions were actually the slowest growing in percentage terms. Much growth occurred in the rural districts which had had the lowest growth forecasts. This was illustrated earlier in Table I-2.

The municipalities, which had been the focus of planned growth in the 1968 Plan, also have lagged far behind overall County growth. As shown on Table II-11, population growth in the unincorporated portions of Caroline County was almost

three times the rate of growth of the incorporated towns. If population additions to the towns through annexations were removed, this growth lag would be even more evident.

Population density by election district is shown on Plate II-4. In 1980 the 5th District (Federalburg area) was the most densely populated with 122.7 persons per square mile. Least densely populated was the 6th District (Hillsboro area), with 39.8 persons per square mile.

Population projections by election district are shown on Table II-12. These are adapted from the July, 1983 projections of the Caroline County Planning Department. Those projections assigned the county-wide forecasts of the Maryland Department of State Planning to the eight election districts based on historical growth and recent trends in building permit activity. Therefore, they assume a continuation of recent trends.

Based on these projections, the Denton, Greensboro and Preston areas will be the fastest growing in terms of population increase. In percentage terms, the Hillsboro, Greensboro and Preston areas will grow fastest. Projected growth rates are similar for all areas of the County except the Federalburg area, where 2.9 percent population growth is forecast.

TABLE II-10
POPULATION
1970 and 1980

	Total 1970	Total 1980	1970-1980 Change		Race - 1980			Spanish Origin
			Number	Percent	White	Black	Other	
<u>County Total</u>	19,781	23,143	3,362	17	19,138	3,915	90	172
<u>District</u>								
1. Henderson	1,887	2,338	451	23.9	2,096	231	11	13
2. Greensboro	2,817	3,371	554	19.7	3,127	235	9	27
3. Denton	3,771	4,595	824	21.8	3,882	692	21	23
4. Preston	2,675	3,293	618	23.1	2,464	815	14	16
5. Federalburg	4,037	4,136	99	2.4	3,234	890	12	30
6. Hillsboro	1,313	1,565	252	19.2	1,219	339	7	5
7. Ridgely	1,882	2,178	296	15.7	1,816	352	10	37
8. American Corner	1,399	1,667	268	19.2	1,300	361	6	21
<u>City or Town</u>								
Denton	1,561	1,927	366	23.4	1,361	550	16	17
Federalburg (pt)	1,917	1,952	35	1.8	1,492	450	10	6
Goldsboro	231	188	-43	-18.6	185	2	1	0
Greensboro	1,173	1,253	80	6.8	1,125	123	5	11
Henderson	135	156	21	15.6	153	3	0	0
Hillsboro	177	180	3	1.7	179	0	1	0
Marydel	176	152	-24	-13.6	152	0	0	0
Preston	509	498	-11	-2.2	487	8	3	2
Ridgely	822	933	111	13.5	819	114	0	14
Templeville (pt)	19	36	17	89.5	36	0	0	0

Source: U. S. Census Bureau, 1980 Census.

From: Caroline County Planning Department, March 1981

TABLE II-11
 INCORPORATED TOWNS VS. UNINCORPORATED AREAS
 POPULATION GROWTH, 1970 - 1980
 CAROLINE COUNTY, MARYLAND

Area -----	1970 -----	1980 -----	Change 1970-1980 -----	
			No. -----	Percent -----
Incorporated Towns	6,720	7,275	555	8.3
Unincorporated Areas	13,061	15,868	2,807	21.5
Caroline County	19,781	23,143	3,362	17.0

Source: U.S. Census, 1970 and 1980

POPULATION DENSITY
BY ELECTION DISTRICT
CAROLINE COUNTY, MD.

ELECTION DISTRICT	DENSITY (Persons/Sq.Mi.)
1. HENDERSON	66.3
2. GREENSBORO	66.1
3. DENTON	103.4
4. PRESTON	71.8
5. FEDERALSBURG	122.7
6. HILLSBORO	39.8
7. RIDGELY	82.5
8. AMERICAN CORNER	36.7

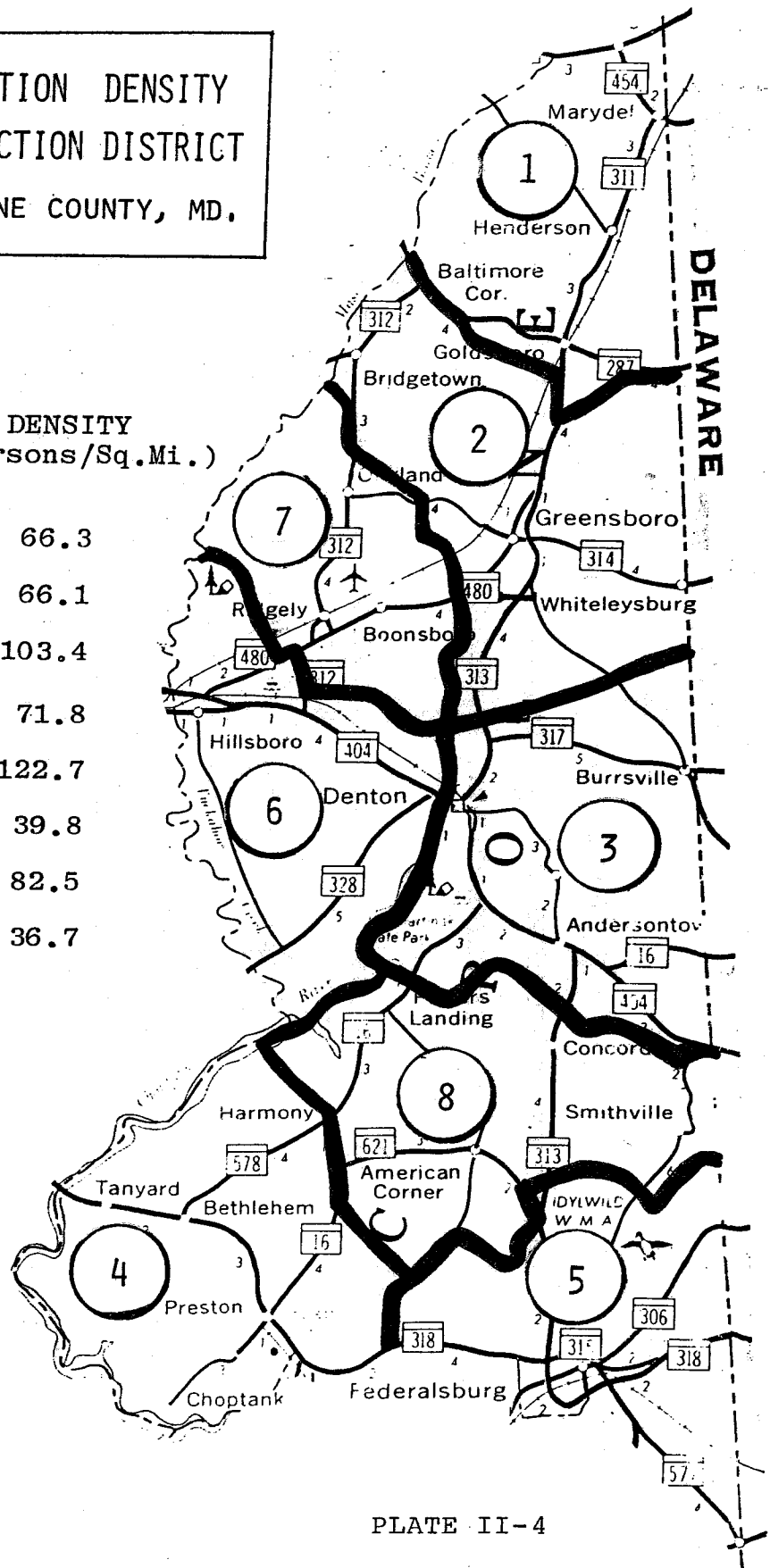


PLATE II-4

From: Caroline County Comprehensive
Water & Sewerage Plan
March 1984

TABLE II-12

POPULATION PROJECTIONS BY ELECTION DISTRICT, 1980 - 2000

CAROLINE COUNTY, MARYLAND

Election Dist. -----	Actual 1980 -----	Est. 1985 -----	1990 -----	1995 -----	2000 -----	Change Number -----	1980-2000 Percent -----
1. Henderson	2,338	2,430	2,550	2,660	2,740	402	17.2
2. Greensboro	3,371	3,530	3,760	3,900	4,030	659	19.5
3. Denton	4,595	4,770	5,020	5,190	5,350	755	16.4
4. Preston	3,293	3,440	3,640	3,790	3,910	617	18.7
5. Federalsburg	4,136	4,190	4,160	4,230	4,260	124	2.9
6. Hillsboro	1,565	1,640	1,730	1,820	1,880	315	20.2
7. Ridgely	2,178	2,250	2,310	2,490	2,450	272	12.5
8. American Corner	1,667	1,750	1,830	1,920	1,980	313	18.8
Caroline County	23,143	24,000	25,000	25,900	26,600	3,457	14.9

Source: U.S. Census (1980)

Maryland Department of State Planning, September, 1985
Election District projections adapted from Caroline County Planning

Department, July, 1983

Population Characteristics

Population change and distribution alone are not sufficient to indicate the underlying nature and important trends affecting the County population. These features and trends can be further identified by looking at the demographic characteristics of the population and how these have changed and are changing. These demographic characteristics include mobility, age, race and sex, and income, which are discussed in the following sections.

1. Mobility

Mobility characteristics of the Caroline County residents in 1970 and 1980 are shown in Table II-13. County residents have become increasingly mobile since 1970, although the population is still relatively stable. In 1980, 81.1 percent of the population had lived here for at least five years, while 61.3 percent had lived in the same home for this amount of time.

Persons who had moved into the County during the 1975-1980 period (18.7 percent of the population), came mostly from other counties in Maryland (12.3 percent). This is a substantial increase from the 8.3 percent figure in 1970. The remaining 6.5 percent of new residents had moved to Caroline County from other states, a small decline in this figure from 1970.

Increasing mobility means more Caroline County residents will have been exposed to governmental services and living standards not usually found in rural areas like Caroline County. If the development patterns of recent years continue, many of these new residents will locate in the rural portions of the County. They may then demand that County government provide the same types of urban services to which they had previously become accustomed.

TABLE II-13
PLACE OF RESIDENCE OF CAROLINE COUNTY RESIDENTS
LAST FIVE YEARS, IN 1970 AND 1980
PERSONS OVER FIVE YEARS OLD

Place of Residence Five Years Earlier -----	1970 Census (Percent) -----	1980 Census (Percent) -----
Caroline County	84.5	81.1
Same House	64.6	61.3
Different House	19.9	19.8
Different County in MD	8.3	12.3
Different State	7.0	6.5
Northeast	1.4	2.4
Northcentral	0.4	0.3
South	4.6	3.3
West	0.6	0.5
Abroad	0.2	0.2
TOTAL	100.0	100.0

Source: 1980 Census Profile, Volume 2
Maryland Department of State Planning, June, 1983

2. Age, Race & Sex

Rural areas such as Caroline County have traditionally had an older population than the nation as a whole, due to the out-migration of young people to areas with better job opportunities. In 1980, Caroline County had a median age of 32 years, meaning that one-half of the population was older and one-half was younger.

During the decade of 1970-1980, several significant changes occurred in the age composition of the Caroline County population. Age profiles for these periods are shown on Plate II-5.

The first significant change is the decline in the percentage of the County population in the 0-9 and 10-19 year age groups. For example, the 0-9 age group fell from 17.7 percent to 14.1 percent of the County population between 1970 and 1980. This change reflects the "baby bust" caused by declining birth rates beginning in the late 1960's and continuing through the 1970's. This decline in the younger age groups has been reflected in declining school enrollment in Caroline County and elsewhere.

A second significant change in the age profiles can be seen in the 20-29 and 30-39 age groups. Young adults in these age groupings are the prime working age population.

In 1970 the age profile reflected a typical rural condition, with the population weighted toward the young and the old, and fewer young adults. However, by 1980 the 20-39 age groups had increased to 28.5 percent of the population, up from 21.7 percent in 1970.

This increase in the population of young working age adults has the beneficial effect of providing a larger local workforce and increased income tax collections for the County. This dramatic change is probably due to a combination of factors, with fewer of our new graduates leaving the County and other young adults employed outside the County moving here.

There was little change in the percentage of persons aged 50 and older between 1970 and 1980, although the absolute number of these persons in the County increased. Consistent with other rural areas, the elderly population is greater in Caroline County than in Maryland or the U.S. as a whole. In 1980, 13.7 percent of the population was age 65 or over, compared to 9.4 percent for all of Maryland.

Population projections by the Maryland Department of State Planning indicate that the birth decline in Caroline County reached its low point in the mid 1970's. The Department forecasts slowly increasing births through 1990. This will

initially result in the stabilization of public school enrollment after a long period of decline. This stabilization is already apparent. Subsequently, there will be a gradual increase in student enrollment.

Age and sex by five year cohorts for Caroline County in 1980 are shown on Table II-14.

Population in 1980 by race (white, black and other) and Spanish origin, was shown previously on Table II-10. Blacks made up 16.9 percent of the County population. Blacks were concentrated most heavily in the southern portions of the County in the 4th District (Preston area) and 5th District (Federalburg area), as well as in the Towns of Denton and Federalburg.

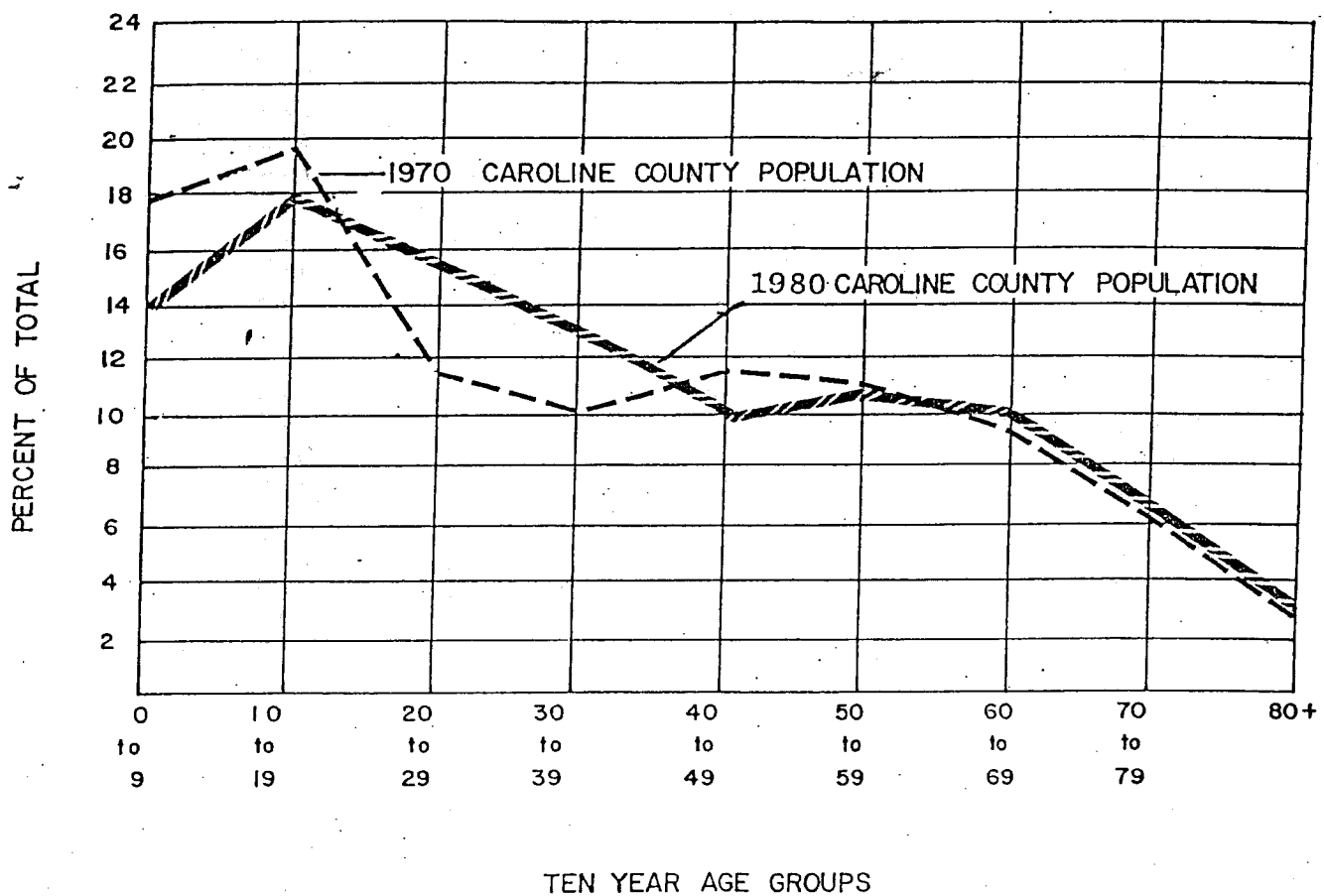
Persons of Spanish origin made up only 0.7 percent of the County population in 1980, and were well distributed throughout the County. Other races made up 0.3 percent of the County population in 1980.

PLATE II-5

AGE PROFILES

CAROLINE COUNTY

SOURCE: U.S. CENSUS



FROM: Caroline County Comprehensive Water & Sewerage Plan
March, 1984

TABLE II-14
AGE AND SEX COHORTS, 1980
CAROLINE COUNTY, MARYLAND

Age	Male	Female	Total	Percent
0-4	843	749	1,592	6.88
5-9	816	860	1,676	7.24
10-14	1,030	943	1,973	8.53
15-19	1,097	1,033	2,130	9.20
20-24	851	913	1,764	7.62
25-29	856	917	1,773	7.66
30-34	778	849	1,627	7.03
35-39	686	731	1,417	6.12
40-44	613	555	1,160	5.05
45-49	512	632	1,144	4.94
50-54	600	628	1,228	5.31
55-59	590	662	1,252	5.41
60-64	577	652	1,229	5.31
65-69	506	575	1,081	4.67
70-74	386	474	860	3.72
75-80	237	347	584	2.52
80-84	169	222	391	1.69
85+	76	178	254	1.10
TOTAL	11,223	11,920	23,143	100.00

Source: Maryland Department of State Planning,
September, 1984 (Based on 1980 U.S. Census)

3. Income

Income is a measure of the economic well being of the population. As with other demographic measurements, income is traditionally lower in rural areas than urban areas. The 1980 Census (using 1979 income data) shows this relationship with all nine Eastern Shore counties having a lower median income than the State of Maryland.

There are several statistical methods for measuring income. Several of these are shown on Table II-15.

In 1979 median family income in Caroline County was \$17,105, or 74 percent of the State of Maryland median. While this is a significant variation, there has been considerable relative improvement since 1969, as shown on Table II-16. During this period median family income in Caroline County rose from 21st place among the 24 Maryland subdivisions to 17th place.

The growth rate of income (130.2 percent) during this decade was greater than inflation during the same time period (98 percent), as well as the increase in median family income for the entire State of Maryland (109 percent). In other words, the people of Caroline County were better off financially, both in real terms considering the effects of inflation, and relative to the remaining more urban population of Maryland.

Within Caroline County there was considerable variation in income levels by election district. Data for 1979 and 1969 is shown on Table II-17 for election districts and for 1979 for incorporated Towns.

The highest median family income was in the Third Election District (Denton area), at 83.5 percent of the State median income. The lowest level was in the First Election District (Henderson, Marydel and Goldsboro area) at 62.7 percent of the State median.

The changes in income by geographic area from 1969-1979 reflect the effects of the pattern of development during the 1970's. The Hillsboro and American Corner districts have risen in income ranking due to waterfront developments on the Choptank River and Tuckahoe Creek.

Among the incorporated towns, Preston had the highest median family income at 100.3 percent of the State median. Templeville had the lowest at 26.0 percent.

Table II-16 also shows a considerable decline in the number and percentage of Caroline County families below the poverty line between 1969 and 1979. This decline occurred in all election districts, as shown on Table II-18. The most

dramatic improvement occurred in the 6th District (Hillsboro area), where the percent of families below the poverty level fell from 33.6 percent in 1970 to 9.2 percent in 1980.

Poverty in Caroline County in 1980, as measured by the percentage of families below the poverty level, was highest in the 7th District (Ridgely area), at 15.9 percent. It was lowest in the 8th District (American Corner area), at 7.5 percent. Somewhat different results are seen when poverty is measured by the percent of persons below the poverty level. Using this measure, poverty was still highest in 1980 in the 7th District at 19.5 percent, but lowest in the 4th District (Preston area), at 10.2 percent.

Although the decline in poverty has been considerable, Caroline County still ranks high among neighboring counties and the State of Maryland in the percentage of families below the poverty level. Details are shown on Table II-19. Of the six nearby counties shown, Caroline ranks third highest in the percentage of poverty families, and second highest in the percentage of poverty persons.

More recent figures are available for disposable personal income, a measure of personal income less tax and certain non-tax payments. These are shown on Table II-20, together with a comparison to Maryland and the U.S. As would be expected, Caroline County figures are lower than both of these. The median household disposable personal income in 1983 was \$17,442, or 63 percent of the Maryland figure and 74 percent of the U.S. figure.

TABLE II-15

CAROLINE COUNTY

1979 INCOME BY HOUSEHOLDS

Median = \$14,452
Mean = \$16,757

Median Per Capita = \$5,198.56
Mean Per Capita = \$6,027.70

Persons per Household = 2.78 average

Household includes everyone except those in jail, nursing homes,
and the Benedictine Sisters and students.

1979 INCOME BY FAMILIES

Median = \$17,105
Mean = \$19,154

Median Per Capita = \$5,214.94
Mean Per Capita = \$5,839.63

Persons per Family = 3.28 average

Family excludes persons living alone, and unrelated persons living
together.

From: 1980 U.S. Census

TABLE II-16
INCOME CHANGES 1969-1979
CAROLINE COUNTY, MARYLAND

	1979	1969	% Chg 1969-79
	-----	-----	-----
Median Family Income	\$17,105	\$ 7,430	+ 130.2
Rank Among 24 MD. Subdivisions	17	21	
% State Median Family Income	74	67	+ 10.4
Total Families	6,334	5,744	+ 10.3
Families Below Poverty Level	638	852	- 25.1
% Families Below Poverty Level	10.1	16.6	- 39.2

Source: 1980 U.S. Census

TABLE II-17

CAROLINE COUNTY MEDIAN FAMILY INCOME

	1979	% State Median Income	1969	% State Median Income
County Total	\$17,105	74.0%	\$7,430	67.2%
<u>Election District</u>				
1. Henderson	\$14,490	62.7%	\$6,589	59.6%
2. Greensboro	18,125	78.4	8,218	74.3
3. Denton	19,291	83.5	8,101	73.2
4. Preston	17,069	73.8	7,935	71.7
5. Federalsburg	15,862	68.6	6,992	63.2
6. Hillsboro	16,117	69.7	5,722	51.7
7. Ridgely	15,772	68.2	7,318	66.1
8. American Corner	18,614	80.5	5,977	54.7
<u>Incorporated Town</u>				
Denton	\$17,348	75.1%		
Federalsburg	16,250	70.3		
Goldsboro	17,946	77.6		
Greensboro	17,243	74.6		
Henderson	9,375	40.6		
Hillsboro	16,458	71.2		
Marydel	14,999	64.9		
Preston	23,194	100.3		
Ridgely	14,350	62.1		
Templeville (pt)	6,000	26.0		

Source: 1970 and 1980 U.S. Census

FROM: Caroline County Comprehensive Water & Sewerage Plan
March, 1984

TABLE II-18

CAROLINE COUNTY POVERTY LEVEL DATA

	1980 Total No. Families	1980 No. Families Below Poverty Level	1980 % Families Below Poverty Level	1970 % Families Below Poverty Level	1980 % Persons Below Poverty Level	1970 % Persons Below Poverty Level
County Total	6,334	638	10.1%	16.5%	13.3%	19.5%
<u>Election District</u>						
1. Henderson	649	101	15.6%	22.9%	16.3%	25.7%
2. Greensboro	910	83	9.1	12.8	14.2	15.5
3. Denton	1,336	127	9.5	11.1	11.3	14.7
4. Preston	826	56	6.8	11.0	10.2	13.8
5. Federalburg	1,174	108	9.2	20.3	12.6	23.1
6. Hillsboro	455	42	9.2	33.6	11.5	36.2
7. Ridgely	559	89	15.9	19.0	19.5	20.8
8. American Corner	425	32	7.5	16.1	13.8	19.7
<u>Incorporated Town</u>						
Denton	526	73	13.9%			
Federalburg	530	54	10.2		16.9%	
Goldshoro	55	0	0.0		14.7	
Greensboro	330	39	11.8		2.5	
Henderson	41	12	29.3		17.3	
Hillsboro	53	4	7.5		23.7	
Marydel	42	5	11.9		8.9	
Preston	133	5	3.8		13.9	
Ridgely	251	32	12.7		5.2	
Templeville (pt)	10	3	30.0		16.3	
					17.1	

Source: 1970 and 1980 U.S. Census

FROM: Caroline County Comprehensive Water & Sewerage Plan, March, 1984

TABLE II-19

POVERTY LEVEL DATA

	Total No. Families	No. Families Below Poverty Level	% Poverty Families	Total No. Persons	No. Persons Below Poverty Level	% Poverty Persons
Caroline	6,334	638	10.1%	23,143	3,077	13.3%
Cecil	15,802	1,083	6.9	60,430	5,542	9.2
Dorchester	8,275	884	10.7	30,623	4,317	14.1
Kent	4,495	460	10.2	16,695	2,129	12.8
Queen Anne's	7,055	524	7.4	25,508	2,388	9.4
Talbot	7,248	514	7.1	25,604	2,584	10.1
Maryland	1,094,386	82,006	7.5	4,216,975	404,532	9.6

Source: 1980 U.S. Census

<u>CAROLINE COUNTY 1979</u> <u>FAMILY INCOME DISTRIBUTION</u>	
Under \$10,000	25.3%
Over \$25,000	24.8%
Over \$35,000	8.7%
Source: 1980 U.S. Census	

FROM: Caroline County Comprehensive Water & Sewerage Plan, March, 1984

TABLE II-20
DISPOSABLE PERSONAL INCOME - 1983*

Distribution	Percent Households		
	Caroline County	Maryland	U.S.
\$ 0-4,999	10.4	5.5	7.2
5,000-9,999	17.2	8.6	11.6
10,000-14,999	15.6	9.3	11.8
15,000-19,999	14.5	10.4	11.7
20,000-24,999	13.8	10.6	11.2
25,000-34,999	17.5	20.3	19.5
35,000-49,999	8.6	20.8	16.9
50,000 and over	2.4	14.5	10.1
Median Household	\$17,442	\$27,677	\$23,420
Average Household	\$19,440	\$30,865	\$27,181
Per Capita	\$ 6,880	\$10,908	\$ 9,889
Total (Millions)	\$167.2	\$47,204.6	\$2,329,209.9

*Disposable Personal Income - Personal income, less personal tax and nontax payments.

Source: Maryland Department of Economic & Community Development
Brief Economic Facts, Caroline County, 1985, Volume 2

FROM: Caroline County OEDP Update
January, 1986

B. The Economy

Employment and Labor Force

The labor force of Caroline County is made up of those residents who are either employed or unemployed but seeking work. The 1980 Census reported a March, 1980 labor force of 10,197 persons, of whom 9,842 were then employed. This was a 30.8 percent increase over the 1970 employed labor force of 7,524 persons, as shown on Table II-21. This increase is almost double the rate of population growth in Caroline County during the same period, and reflects several important trends.

First, more women have entered the labor force in Caroline County as they have also done nationally. Second, the portion of young working age adults in the County population expanded rapidly during this decade. This is partly due to demographic factors resulting from the "baby boom" of the 1950's and early 1960's. It is also due in part to less out-migration of high school graduates and other local youths for jobs, and in-migration of other working age young adults. These factors were discussed in detail in the preceding Section II.A.

In 1980 the industry group employing the largest number of Caroline County residents was Non-Durable Goods Manufacturing. This sector experienced a slight decline in numbers (-0.6 percent) between 1970 and 1980, due primarily to the closing of many food processing plants. The only other industry group in which employment declined was Agriculture, Forestry, Fisheries and Mining, which also experienced small decline (-2.5 percent). The largest gains in employment were in Health Services (202.0 percent), Manufacturing, Durable Goods (158.0 percent), and Finance, Insurance and Real Estate (152.4 percent).

The changes in employment of Caroline County residents as shown on Table II-21 reflect the important shifts in the local and regional economy underway during the last two decades. The Eastern Shore and Caroline County are gradually shifting away from the resource based economy of the past. Agriculture, forestry and fisheries, while still very important, are no longer the dominant employment sectors. A more diversified economy based on manufacturing, services and transportation is emerging.

There is a second source of labor force information for Caroline County provided by the Maryland Department Human Resources. Labor force information from this source consistently shows a lower labor force than would be expected demographically or by comparison to the 1980 Census. The Caroline County Planning Department has long disputed these labor force figures. One possible source of

the error may be the combination of most employment services of the Department of Human Resources with the two-county office in Easton.

There is a pronounced seasonal fluctuation in both the total size of the Caroline County labor force (as measured by the Department of Human Resources), and the unemployment rate. As indicated on Table II-22, unemployment peaks during the winter months and gradually declines to a low in late summer and fall. This is due to seasonal employment in agriculture, food processing and construction.

Additional labor force characteristics are shown on Table II-23. The participation rate, or percentage of the population 16 years of age and older who are in the labor force, rose to 60.6 percent in 1980 from 56.2 percent in 1970. There was a slight decline in the participation rate for males, but a large increase for females, from 39.7 percent in 1970 to 49.6 percent in 1980.

Unemployment rates in 1980 were considerably higher than in 1970, and rates for blacks were approximately double those for whites in both years.

Employment within the physical boundaries of Caroline County, as opposed to labor force employment, has undergone some significant changes in recent years as shown on Table II-24. Most significant was the drastic loss of 859 manufacturing jobs between 1970 and 1975. This was the result of the closing of cannery and food processing plants. During this same time period there was a total County loss of 925 jobs, indicating relative stability in the other employment categories.

Between 1975 and 1983, significant job growth occurred in all industry groups except manufacturing, and total employment in Caroline County increased by 1,122 jobs. However, total employment in 1983 was only slightly higher than the 1970 level, with an increase of 197 jobs or 4.4 percent. During the same period the population of Caroline County increased by almost 4,000 persons, or about 20 percent.

Many of the manufacturing jobs lost between 1970 and 1983 were in the food processing industry, and were seasonal, low skill, low wage employment. Most manufacturing employment today is in a diversified array of light manufacturing and assembly industries. These businesses, though offering fewer total jobs, are generally better paying, more stable and offer higher skill opportunities than the former food processing industry base. As an example, over 500 new jobs have been added in the Federalsburg Industrial Park between 1973 and 1985.

The employment figures cited above exclude railroad, domestic service, self-employed, agricultural, government and unpaid family workers. In 1981 the combined federal, state and local government employment in Caroline County was 824 jobs.

Even adding governmental and other excluded jobs to the figures cited above leaves a County employment base far lower than the labor force of County residents. This has resulted in the need for a large portion of the labor force to commute outside the County for employment. Commuting patterns are discussed in detail in the following section.

TABLE II-21

CAROLINE COUNTY RESIDENTS
EMPLOYMENT BY INDUSTRY - 1970 & 1980

	<u>1970</u>	<u>1980</u>	<u>% Change</u>
Agriculture, Forestry, Fisheries & Mining	972	948	- 2.5%
Construction	624	689	10.4
Manufacturing Non- Durable Goods	1,881	1,869	- 0.6
Manufacturing Durable Goods	329	849	158.0
Transportation	330	691	109.4
Communications, other Public Utilities	186	168	9.7
Wholesale Trade	297	366	23.2
Retail Trade	1,110	1,423	28.2
Finance, Insurance, Real Estate	122	308	152.4
Business & Repair	189	157	16.9
Personal, Entertainment & Recreation	294	328	11.6
Health Services	153	462	202.0
Education	495	888	79.4
Other Professional Services	211	251	19.0
Public Administration	<u>331</u>	<u>445</u>	<u>34.4</u>
TOTAL	7,524	9,842	30.8%

Source: 1970 and 1980 U.S. Census, Employed Persons 16 and Over by Industry, Summary Tape File 3A.

FROM: Caroline County Comprehensive Water & Sewerage Plan
March, 1984

TABLE II-22

Labor Force, Employment and Unemployment

<u>Year</u>	<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>	<u>Unemployment Rate</u>
1976	8193	7384	809	9.9%
1977	8575	7791	784	9.1%
1978	8405	7687	718	8.5%
1979	8124	7346	778	9.6%
1980	8237	7272	965	11.7%
1981	8186	7202	984	12.0%
1982	8386	7340	1046	12.5%
1983(Avg)	7996	7127	868	10.9%
Jan	7771	6503	1268	16.3%
Feb	7739	6471	1268	16.4%
Mar	7839	6689	1150	14.7%
Apr	7838	6878	960	12.2%
May	7926	7032	894	11.3%
Jun	8181	7439	742	9.1%
Jul	7987	7178	809	10.1%
Aug	7943	7273	670	8.4%
Sep	8207	7601	606	7.4%
Oct	8284	7659	625	7.5%
Nov	8337	7599	738	8.9%
Dec	7893	7204	689	8.7%
1984(Avg)	8367	7591	776	9.3%
Jan	8146	7069	1077	13.2%
Feb	8467	7276	962	11.7%
Mar	8446	7567	879	10.4%
Apr	8313	7536	777	9.3%
May	8472	7679	793	9.4%
Jun	8685	8016	669	7.7%
Jul	8337	7651	686	8.2%
Aug	8142	7446	696	8.5%
Sep	8382	7738	644	7.7%
Oct	8540	7924	616	7.2%
Nov	8494	7770	724	8.5%
Dec	8282	7546	736	8.9%

Source: Dept. of Human Resources
Employment Security Administration

FROM: Caroline County OEDP Update
January, 1986

TABLE II-23

LABOR FORCE AND EMPLOYMENT CHARACTERISTICS FOR CAROLINE COUNTY

LABOR FORCE STATUS BY RACE AND SEX, 1980 AND 1970

UNIVERSE: PERSONS 16 YEARS OLD AND OVER

	BOTH SEXES				MALES				FEMALES			
	CHANGE 1970-80		CHANGE 1970-80		CHANGE 1970-80		CHANGE 1970-80		CHANGE 1970-80		CHANGE 1970-80	
	1980	1970	NUMBER	PERCENT	1980	1970	NUMBER	PERCENT	1980	1970	NUMBER	PERCENT
ALL RACES												
PERSONS 16 YEARS AND OVER	17392	13747*	3645	26.5	8299	6629	1670	25.2	9093	7118	1975	27.7
LABOR FORCE	10548	7732	2816	36.4	6041	4903	1138	23.2	4507	2829	1678	59.3
(% OF PERSONS 16+)	60.6	56.2			72.8	74.0			49.6	39.7		
ARMED FORCES	17	18	-1	-5.6	17	18	-1	-5.6	0	0	0	.0
CIVILIAN LABOR FORCE	10531	7714	2817	36.5	6024	4885	1139	23.3	4507	2829	1678	59.3
EMPLOYED	9842	7524	2318	30.8	5695	4801	894	18.6	4147	2723	1424	52.3
UNEMPLOYED	689	190	499	262.6	329	84	245	291.7	360	106	254	239.6
(% OF CIVILIAN L.F.)	6.5	2.5			5.5	1.7			8.0	3.7		
NOT IN LABOR FORCE	6844	6015	829	13.8	2258	1726	532	30.8	4586	4289	297	6.9
WHITE												
PERSONS 16 YEARS AND OVER	14539	11224*	3315	29.5	6994	5419	1575	29.1	7545	5805	1740	30.0
LABOR FORCE	8774	6285	2489	39.6	5147	4081	1066	26.1	3627	2204	1423	64.6
(% OF PERSONS 16+)	60.3	56.0			73.6	75.3			48.1	38.0		
ARMED FORCES	17	6	11	183.3	17	6	11	183.3	0	0	0	.0
CIVILIAN LABOR FORCE	8757	6279	2478	39.5	5130	4075	1055	25.9	3627	2204	1423	64.6
EMPLOYED	8273	6156	2117	34.4	4878	4013	865	21.6	3395	2143	1252	58.4
UNEMPLOYED	484	123	361	273.5	252	62	190	306.5	232	61	171	280.3
(% OF CIVILIAN L.F.)	5.5	2.0			4.9	1.5			6.4	2.8		
NOT IN LABOR FORCE	5765	4939	826	16.7	1847	1338	509	38.0	3918	3601	317	8.8
BLACK												
PERSONS 16 YEARS AND OVER	2801	2511*	290	11.5	1275	1204	71	5.9	1526	1307	219	16.8
LABOR FORCE	1737	1441	296	20.5	866	816	50	6.1	871	625	246	39.4
(% OF PERSONS 16+)	62.0	57.4			67.9	67.8			57.1	47.8		
ARMED FORCES	0	12	-12	-100.0	0	12	-12	-100.0	0	0	0	.0
CIVILIAN LABOR FORCE	1737	1429	308	21.6	866	804	62	7.7	871	625	246	39.4
EMPLOYED	1538	1362	176	12.9	789	782	7	.9	749	580	169	29.1
UNEMPLOYED	199	67	132	197.0	77	22	55	250.0	122	45	77	171.1
(% OF CIVILIAN L.F.)	11.5	4.7			8.9	2.7			14.0	7.2		
NOT IN LABOR FORCE	1064	1070	-6	-.6	409	388	21	5.4	655	682	-27	-4.0

Source: 1980 Census Profile, Vol. 2
Maryland Dept. of State Planning
June, 1983

* SUPPRESSION FLAG

TABLE II-24

Employment by Industry* - 1970 to 1983

Industry	1970		1973		1975		1983	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Manufacturing	1887	42.1	1519	36.9	1028	28.9	968	20.6
Wholesale & Retail Trade	983	21.9	1022	29.8	1007	28.3	1237	26.4
Service	426	9.5	344	8.4	283	8.0	706	15.0
Construction	224	5.0	232	5.6	189	5.3	201	4.3
Transportation, Communication and Utilities	846	18.9	879	21.4	923	25.9	1391	29.7
Finance, Insurance and Real Estate	116	2.6	120	2.9	127	3.6	176	3.8
	4482	100.0	4116	100.0	3557	100.0	4679	100.0

* Excluded are railroad, domestic service, self-employed, agricultural, government and unpaid family workers

Source: (1983) Maryland Department of Employment and Training, Research and Analysis Division
 (1975) Maryland Dept. of Economic & Community Development, Brief Industrial Facts.
 (1973) Maryland Dept. of Economic & Community Development, Community Economic Inventory.
 (1970) Maryland Dept. of Economic & Community Development, An Economic & Social Atlas
of Maryland, Dec. 1974, Table B-1, p. 45.

FROM: Caroline County OEDP Update
 Caroline County Planning Department
 January, 1986

Industry

Caroline County's industry was traditionally based on agriculture. Numerous small canneries, pickling plants, dairy plants and two poultry plants provided the majority of the manufacturing employment. External market forces began to adversely impact these food processing industries, resulting in many plant closings in the late 1960's and continuing through the early 1970's. The result was a substantial loss of jobs, many with relatively low skills and wages, and often highly seasonal.

The closing of these food processing plants did much to precipitate the most significant employment trends evident in the 1970's. Those trends included stagnant or declining total employment and the rising rate of commuting to outside jobs. However, on the positive side, the plant closings spurred local leaders to begin serious economic development efforts aimed at increasing the attractiveness of the County to business and industry.

The Town of Federalsburg was the first to recognize the need to diversify and stabilize its employment base and to take specific action to accomplish these goals. In 1973 the Town purchased 200 acres of land adjoining the Town for development as an industrial park. With the assistance of the County and using state and federal funding programs, the Town has successfully developed this property as the Federalsburg Industrial Park. Today nine companies employing over 500 workers have located in the Park.

In addition to the Federalsburg Industrial Park, two other new industrial parks have recently been opened in Federalsburg (the Caroline Industrial Park) and Denton (the Denton Industrial Park). These are full service industrial parks providing a complete range of facilities needed by new industry.

Most of the older industry in Caroline County was located in the town centers, except for canneries and pickling plants which were often in rural locations. Most industrial properties were small. Today planned industrial parks are the preferred locations for most light industry because of the ready availability of the land, proper zoning, public facilities, financing programs, spacious lot sizes with adequate parking and expansion room, and protective covenants and restrictions.

It is likely that most new industry locating in Caroline County will choose one of the three industrial parks. Most of the industrial buildings constructed in these parks will be single story structures.

Industry in Caroline County today consists of a diversified

range of light industries in a variety of industry groups. A summary of the major manufacturing firms is shown on Table II-25. As can be seen, Federalsburg has the largest number of manufacturers, and these firms are the largest employers. Denton is next in terms of the number and size of manufacturing firms. Manufacturing firms are limited in the rest of Caroline County.

As a comparison, Table II-26 shows major non-manufacturing firms in Caroline County. The largest number of these, as well as non-manufacturing employment, is in Denton. Trucking is a major employer, and is concentrated in the Federalsburg and Preston areas. Farm service firms are scattered throughout the County, but are generally not large employers.

TABLE II-25

MAJOR MANUFACTURING FIRMS - 1985

CAROLINE COUNTY, MARYLAND

Firm	Town	Jobs	SIC Codes	Product/Service
Custom Cannery Service	Denton	10		Cannery Equip. Rehab.
DRJ Exercise Equipment	Denton	9		Gymnasium Equipment
Electro-Therm	Denton	130	3634	Elec. heating element
Mulholland-Harper	Denton	100	2079, 3444	Plastic & metal signs
Nuttle Lumber	Denton	39	2439, 2452	Trusses, home bldg.
Towers Concrete	Denton	13	3272	Conc. tanks, vaults
Fed Sportswear	Federalburg	75		Ladies Sportsware
Maryland Plastics	Federalburg	321	2339	Plastic products
Metal Systems	Federalburg	41	3079	Lab. Animal Equip.
Reliance Wood Preserving	Federalburg	15	3496, 3811	Salt Treated Lumber
Shoreman Corporation	Federalburg	85	2491	Dried bread products
Sitte Corporation	Federalburg	14	2051	Photo dev. equipment
Solo Cup	Federalburg	228	3861	Paper & foam cups
Yankee Technical Products	Goldsboro	18	2654, 2646	Military goggles
L. H. Manufacturing	Greensboro	35		Textile Processing
Technitrol	Greensboro	150	3679	Electronic compon.
Grasonville Fisheries	Ridgely	95		Clam products
Saulsbury Brothers	Ridgely	73	2091, 2092	Frozen foods

Source: Caroline County Economic Development Commission

TABLE II-26

SELECTED MAJOR NON-MANUFACTURING FIRMS - 1985

CAROLINE COUNTY, MARYLAND

Firm	Town	Jobs	SIC Codes	Product/Service
Caroline Nursing Home	Denton	91		Skilled care nursing
Choctank Electric Coop.	Denton	123		Electric utility
Denton Supply Center	Denton	5	4911	Fertilizer
Denton Trucking	Denton	21	2875, 3274	Trucking & sawmill
First National Bank	Denton	30	4213, 2421	Commercial bank
Peoples Bank of Maryland	Denton	30	6025	Commercial bank
Pinkett's Shore Lines	Denton	35	6025	Charter bus line
Provident State Bank	Denton	8	4119	Commercial bank
Soil Service	Denton	9	6025	Fertilizer & lime
Southern States Cooperative	Denton	9	0711, 5191	Feed & fertilizer
Wesleyan Health Center	Denton	45	5191	Nursing & domic. care
Dew Line	Federalburg	17	4213	Trucking
Koski Trucking	Federalburg	35	4213	Trucking, warehouse
Maryland National Bank	Federalburg	12	6025	Commercial Bank
Overnite Transportation	Federalburg	25	4213	Trucking
Sisk Fullfillment Services	Federalburg	45		Mailing service
Tri-Gas & Oil	Federalburg	85	5722, 5983	Fuel & appliances
Williams Refrigerated Express	Federalburg	96	4213	Trucking, refrig. whse.
Howard R. Shockley	Goldsboro	10	5999	Pet foods
Caroline County Bank	Greensboro	9	6022	Commercial bank
Greensboro Supply	Greensboro	15	2875, 2048	Feed and fertilizer
A. W. Sisk & Sons	Preston	36	5141	Food brokers
Nagel Farm Service	Preston	20	5191, 5153	Feed & grain

TABLE II-26
(Cont'd)

SELECTED MAJOR NON-MANUFACTURING FIRMS - 1985

CAROLINE COUNTY, MARYLAND

Preston Trucking	Preston	368	4213	Trucking
Provident State Bank	Preston	18	6022	Commercial bank
Southern States Cooperative	Preston	6	5191, 5083	Feed & fertilizer
Benedictine School	Ridgely	70		Sch. except. children
Nationwide Fulfillment	Ridgely	125		Mailing service

Source: Caroline County Economic Development Commission

Retail and Service Business

The authors of the 1968 Comprehensive Plan recognized that the major problem facing Caroline County with regard to commercial development was the widely scattered population and lack of a concentrated commercial center. This situation has actually worsened since 1968 as the incorporated towns have become an even smaller percentage of the total county population. In 1970 the towns contained 34.0 percent of the County population, while in 1980 they had dropped to only 31.4 percent of the total County population. There are 10 incorporated towns with the largest two, Denton and Federalsburg, being just under 2,000 people in 1980.

New population growth between 1968 and 1980 has not been concentrated near the towns where it would support commercial and business growth. Instead, it has been widely scattered in the rural areas of the County. Thus we are moving farther away rather than closer to the creation of population centers capable of supporting a viable commercial base.

During this same period competing retail and service centers outside of Caroline County have developed rapidly. Each is located in a population concentration far larger than any in Caroline County. The County's close proximity to Delaware and the absence of a Delaware sales tax is clearly a beneficial factor for the development of Dover and Seaford retailers. However, the sales tax factor clearly does not account for the spectacular commercial growth of the Easton and Salisbury areas.

It would appear that the primary factor spurring the development of these commercial centers has been the larger local population base which supported a diversified retail and service business sector. In addition, the local business communities acted aggressively to draw on the purchasing power in surrounding rural areas, including Caroline County.

An additional factor which has adversely affected the growth of a commercial base in Caroline County is the high commuting rate of Caroline County workers to outside jobs. In 1980 over 42 percent of the county labor force commuted to jobs outside Caroline County.

When workers travel to another community for their employment, it is likely that they will establish other economic relationships in that community. They are more likely to do their banking, buy their groceries, fill their gas tank, and conduct other business in the community where they work. The result is to direct potential purchasing power away from Caroline County businesses.

Retail activity can be measured by the level of sales tax receipts as recorded by the Comptroller of the Treasury, Retail Sales Tax Division. These are shown for Caroline County on Tables II-27 and II-28.

As can be seen on Table II-27, Caroline County ranks very poorly in total retail sales tax collections and also by each class of business except for Utilities and Transportation. Overall rank is 23rd place among the 24 political subdivisions of Maryland. Caroline County also ranked 23rd in the number of returns filed and the tax collected per return. This indicates a small number of businesses, which are in return small in size compared to others elsewhere in Maryland.

Table II-28 shows the change in retail sales tax collections between Fiscal Years 1976 and 1985. This gives an indication of the trends in retail sales by the various business classes. Collections increased in all business classes except apparel, utilities & transportation, and hardware, machinery and equipment. Overall, collections grew by 46 percent. However, during this same period collections for the State of Maryland grew by 136 percent, indicating a considerable lag in Caroline County.

A second way to evaluate the changes in retail sales shown on Table II-28 is in real dollars adjusted for inflation. Between 1975 and 1984 the Consumer Price Index increased by 90.8 percent, substantially greater than the increase in retail sales tax receipts. In other words, after considering inflation, retail sales tax receipts in Caroline County actually decreased by 23.7 percent between 1975 and 1985.

Retail activity in Caroline County, as measured by sales tax collections, has actually declined since 1976 if the comparison is made in 1976 dollars, and considering the effects of inflation.

An interesting comparison is made with neighboring Talbot County which had a 1985 population 12 percent greater than Caroline County, and a 53 percent higher personal per capita income. However, retail sales tax collections were 247 percent greater in Talbot County than in Caroline County.

Clearly, the strength of the commercial sector in Talbot County is due to more than a greater total population and income. Talbot County imports purchasing power from Caroline County and other areas. Conversely, Caroline exports much of its potential retail purchasing power to outside businesses, thereby losing this opportunity for growth in the local economy. The challenge for Caroline County is how to reverse this long term trend.

TABLE II-27

RETAIL SALES TAX RECEIPTS, FISCAL YEAR 1985

(CAROLINE COUNTY, MARYLAND)

Class of Business	Collection	Percent of Total	Rank*
-----	-----	-----	-----
Food & Beverage	\$ 575,106	27.0	23
Apparel	34,990	1.6	22
General Merchandise	231,558	10.9	22
Automotive	235,638	11.1	23
Furniture & Appliances	124,291	5.8	22
Bldg. & Ind. Supplies	145,243	6.8	23
Utilities & Transp.	380,883	17.9	16
Hardware, Machy. & Equip.	73,851	3.5	23
Miscellaneous Group	267,606	12.5	21
Assessment Collections	62,948	3.0	15
Total Collections	\$2,132,123	100.0	23
Percent Growth FY84-85	13.97		8
Number of Returns Filed	3,524		23
Average Tax Per Return	605		23

* Rank among the 24 political subdivisions of Maryland

Source: Maryland Comptroller of the Treasury
Retail Sales Tax Division
Statistical Report for Fiscal Year 1985

TABLE II-28
CHANGES IN RETAIL SALES TAX COLLECTIONS
FISCAL YEARS 1976 TO 1985
CAROLINE COUNTY, MARYLAND

Class of Business	FY 1985 Collection	FY 1976 Collection	Change FY77-84
-----	-----	-----	-----
Food & Beverage	\$ 575,106	\$ 251,592	129
Apparel	34,990	35,499	-1
General Merchandise	231,558	117,807	97
Automotive	235,638	107,825	119
Furniture & Appliances	124,291	57,404	117
Bldg. & Ind. Supplies	145,243	87,030	67
Utilities & Transp.	380,883	530,180	-28
Hardware, Machy. & Equip.	73,851	90,381	-18
Miscellaneous Group	267,606	172,953	55
Assessment Collections	62,948	13,152	379
	-----	-----	---
Total Collections	\$2,132,123	\$1,463,823	46

Source: Maryland Comptroller of the Treasury
Retail Sales Tax Division
Statistical Report for Fiscal Years 1977 & 1985

Commuting

The extremely high rate of commuting by the Caroline County labor force has been mentioned in the preceding sections. The commuting rate is measured by the percentage of the labor force employed outside of the County. Between 1960 and 1970, the rate increased from 25.3 percent to 34.6 percent. From 1970 to 1980, it increased again to 42.2 percent, or 4,102 workers.

As can be seen on Table II-29, commuting rates have increased for every Eastern Shore county since 1960. This indicates the regionalization of the Shore's economy and the greater willingness of workers to travel to employment.

Caroline County had the third highest commuting rate among the 9 Eastern Shore counties in 1980. The only counties with higher rates were Queen Anne's County (55.3 percent) and Cecil County (44.6 percent). However, both of these counties are significantly different in geographic location and economic relationships from Caroline and the other Eastern Shore counties.

Queen Anne's County is located on the fringe of the Baltimore-Washington metropolitan area. Cecil County occupies a fringe location between the Baltimore metro area and the Wilmington metro areas. Therefore, the high commuting rates found in these counties would be expected. The high rate found in Caroline County would not normally be expected due to its rural geographic location.

Table II-30 shows the place of work of commuters from Caroline County in 1980. The largest number of commuters (42 percent) were employed in neighboring Talbot County. The number of workers commuting to Talbot County more than tripled between 1970 and 1980.

The next largest destination for Caroline County commuters was Delaware (26 percent). However, there was a decrease of about 200 workers commuting to Delaware between 1970 and 1980.

Most of the remaining workers commuted to other Eastern Shore counties (21 percent). About 8 percent commuted to the Western Shore (Washington and Baltimore metropolitan areas).

As previously noted, the high rate of commuting in Caroline County is the result of inadequate job opportunities within the County. This has many other adverse economic impacts, including a weakening of the commercial sector of the economy.

TABLE II-29

Proportion of Labor Force Working
Outside County of Residence
1980, 1970, 1960

<u>Subdivision</u>	<u>1980</u>	<u>Percent</u> <u>1970</u>	<u>1960</u>
Maryland	43.0	39.6	32.4
Caroline	42.2	34.6	25.3
Cecil	44.6	30.0	25.6
Dorchester	17.0	13.3	13.3
Kent	27.3	18.0	11.0
Queen Anne's	55.3	34.0	22.5
Somerset	32.6	25.8	20.2
Talbot	16.5	10.5	6.0
Wicomico	14.9	11.4	9.4
Worcester	23.1	20.4	14.2

Source: 1980 U.S. Census
Summary Tape 3A

FROM: Caroline County OEDP Update
January, 1986

TABLE II-30

Destination of Caroline County Commuters
1970 and 1980

<u>Place of Work</u>	<u>1980 Commuters</u>	<u>1970 Commuters</u>
Talbot County	1684	533
Delaware	1052	1273
Dorchester County	461	221
Queen Anne's County	254	87
Baltimore SMSA	192	80
Washington, D.C. SMSA	130	17
Kent County, MD	105	104
Baltimore City	81	33
Wicomico County	25	23
Washington, D.C.	9	--
Worked Elsewhere	109	17
Total - out of Caroline County =	3993	2388
Total - In Caroline County =	5618	4574
Total - All Workers =	9720	6962

Source: 1980 U.S. Census

FROM: Caroline County OEDP Update
January, 1986

Agriculture

Caroline County is blessed with productive agricultural lands and a rich farming heritage. Agriculture remains the County's largest and most important industry, although its dominance is somewhat reduced today.

The U. S. Bureau of Economic Analysis reported that Caroline County farms received \$80,659,000 for their agricultural production in 1982, while incurring production expenses of \$65,697,000. The difference of \$14,962,000 is the farm owner's income. When combined with the 1982 direct labor expenditure of \$3,802,000, the resulting figure of \$18,764,000 is the total agricultural "payroll".

The agricultural payroll described above ranks agriculture as first among the industry groups as a source of income in Caroline County. The income generated by agriculture would be further increased if related businesses could be added, including food processing industry, farm sales and service, produce retailers, etc.

Agriculture is perhaps more subject to outside economic forces than any other significant industry in Caroline County. Both sides of the income equation, agricultural product revenue and production expenses are largely beyond the control of the individual farmer. Therefore, the actual agricultural income will vary each year, depending upon these factors.

Farm economic statistics are shown on Table II-31, including a comparison between 1978 and 1982. Agricultural production statistics are shown on Table II-32. Production and sales increases were most significant for corn, wheat and broilers. Soybean production dropped. Vegetable and melon sales rose slightly, although acreage devoted to these crops dropped substantially from 9,570 to 5,657 acres. Most other agricultural products and sales were little changed.

A major economic plus has been the steady growth in poultry sales. In 1982 they accounted for 59 percent of all agricultural sales in Caroline County.

The national trend to fewer and larger farms has also been evident in Caroline County in recent decades. Between 1969 and 1982 the number of farms declined from 817 to 730, and farm size increased from 163 to 180 acres. Although Table II-33 indicates a stabilization of this trend between 1978 and 1982, the figures are somewhat altered by a number of new small farms. If only farms with sales over \$10,000 are considered, then the trend to fewer and larger farms continued in this recent period as well. In 1978 there were 517 farms averaging 237 acres in this category. By 1982 the number had declined to 482 farms averaging 249 acres in

size.

Total land in farms in Caroline County has declined by about 2,000 acres between 1978 and 1982, to 131,094 acres. Cropland has increased by about 3,000 acres to 107,719 acres. Much of this increase in cropland has come from woodland. Between 1978 and 1982, almost 4,000 acres of farm woodland were eliminated. Irrigated land continued its upward trend with almost 2,000 more acres added between 1978 and 1982, to 9,695 acres.

Caroline County has designated itself as "The Green Garden County". This designation is well justified. The County ranks near the top in all major crop production categories as shown on Table II-34.

Since agriculture faces a multitude of constantly changing and frequently adverse conditions, it is important that the Comprehensive Plan provide a fertile ground for agricultural growth. To the extent that agriculture can be promoted and enhanced, it should be. Barriers to agricultural development should be minimized, and land use conflicts avoided.

TABLE II-31
SELECTED FARM ECONOMIC STATISTICS, 1978 & 1982
CAROLINE COUNTY, MARYLAND

Economic Statistic	1982	1978
Farms	730	728
Farms With Sales > \$10,000	482	517
Value of Land & Buildings (av.)	\$304,960	\$266,081
Total Sales (\$1,000)	\$ 68,344	\$ 55,918
Av. Sales per Farm	\$ 93,621	\$ 76,811
Sales by Product (\$1,000):		
Crops	\$ 21,555	\$ 17,250
Grains	\$ 16,789	\$ 15,063
Vegetables & Melons	\$ 3,990	\$ 3,842
Poultry	\$ 40,593	\$ 31,159
Dairy	\$ 3,609	\$ 2,817
Cattle & Calves	\$ 1,162	N/A
Hogs	\$ 1,373	\$ 1,119
Hired Farm Laborers, Total	1,232	1,592
Hired Laborers, Worked > 150 Days	254	321

Source: U. S. Census of Agriculture, 1982

TABLE II-32
 AGRICULTURAL PRODUCTION STATISTICS, 1978 & 1982
 CAROLINE COUNTY, MARYLAND

Agricultural Product	1982	1978
-----	-----	-----
Crops		
Corn, Acres	32,796	26,673
Corn, Bu.	3,367,597	2,591,860
Wheat, Acres	20,207	7,724
Wheat, Bu.	791,312	244,208
Soybeans, Acres	55,462	52,713
Soybeans, Bu.	1,235,170	1,575,013
Vegetables, Acres	5,657	9,570
Cattle & Calves	2,454	3,261
Hogs & Pigs	15,293	15,077
Broilers	33,819,176	25,441,706

Source: U. S. Census of Agriculture, 1982

TABLE II-33
 AGRICULTURAL LAND USE, 1978 & 1982
 CAROLINE COUNTY, MARYLAND

Agricultural Land Use (Ac.)	1982	1978
-----	-----	-----
Land in Farms	131,094	133,222
Average Farm Size	180	183
Percent of County in Farms	63.9	64.9
Total Cropland	107,719	104,889
Cropland Harvested	103,643	99,455
Total Woodland	18,482	22,213
Pasture (Not Wooded)	966	863
Pastureland (All Types)	3,490	4,457
Land in House Lots, Roads, Ponds, Wasteland, etc.	3,927	5,257
Federal Set Aside Lands	118	2,058
Irrigated Land	9,695	7,543

Source: U. S. Census of Agriculture, 1982

TABLE II-34
1982 FARM PRODUCTION RANKING
CAROLINE COUNTY IN THE STATE OF MARYLAND

Agricultural Product -----	Rank in Maryland -----
Corn	5
Wheat	1
Barley	1
Soybeans	5
Vegetables (Acres)	1
Green Limas	1
Snap Beans	3
Cantaloupes	1
Watermelons	3
Carrots	1
Cucumbers	2
Peas	2
Hot Peppers	1
Sweet Peppers	3
Squash	2
Sweet Corn	5
Tomatoes	3
Strawberries	3

Source: U. S. Census of Agriculture, 1982

C. The Natural Resources

Resources of the Land

1. Topography

Caroline County is located in the middle of the Eastern Shore region within the Atlantic Coastal Plain. This is a broad expanse of unconsolidated sediments stretching the length of the Atlantic coast from Florida to New England.

The topography of Caroline County has been formed over millions of years by the interaction of the Atlantic Ocean and the Susquehanna River. Outwash from the river and its ancestors has laid down thousands of feet of sediments, consisting of sands, clays, silts and gravels.

These sediments have in turn been shaped by periodic inundation by the ocean during sea level rises, and eroded during periods of lower sea levels. The Chesapeake Bay and its tributaries within Caroline County were carved during a recent period of lowered sea levels during the Ice Ages.

Within Caroline County today elevation changes are slight, with most terrain characterized as flat or gently undulating. Short, steep banks are found along most major streams. Most land has slopes under five percent, with less than two percent of the County having slopes greater than 10 percent.

The lowest elevation in Caroline County is located in the village of Choptank at the southern tip of the County, approximately 5 feet above sea level. The highest elevation is 77 feet above sea level at a site approximately one-half mile north of Mount Zion, in the northern tip of the County. Most land in the County is located at elevations lying between 40 and 70 feet above sea level.

The total area of Caroline County is approximately 325 square miles (208,000 acres).

2. Soils

Soils information is a critical component of the data required for land use planning. Soils are the primary natural resource which determines the suitability of land for various uses.

Caroline County soils have been mapped in the Soil Survey of Caroline County, Maryland by the U. S. Department of Agriculture, Soil Conservation Service. This survey provides an excellent planning reference to soil classifications and maps indicating the soils in all parts of Caroline County. Experience has indicated that these maps are best used for planning purposes, and cannot be used to precisely pinpoint the soils at specific locations.

The Soil Survey identifies 70 soil types found within Caroline County. These soil types are then grouped into four major soil associations. Each association contains a few major soils which dominate and several minor soils which together have fairly common characteristics and management requirements.

The general geographic distribution of these soil associations is shown on Plate II-6. Characteristics of each association are described below.

It is important to note that these characteristics are generally true, but may not apply to the soils on specific sites. Within each soil association there will be soils which do not meet the general characteristics of the group. Therefore, these descriptions are most useful in comprehensive planning rather than site planning activities.


1. Sassafras-Galestown-Fallsington Association - These soils are moderately coarse textured soils that are predominantly well drained to excessively drained.

This association runs in a wide diagonal band through the center of Caroline County from the Delaware line east of Greensboro, through Denton, to the Preston and Choptank area. It is bounded on the west by the Choptank River and on the east by the Marshyhope Creek divide. Another small segment extends along the County's southern boundary and up the east side of Marshyhope Creek to include Federalsburg.

Altogether, this association covers 144 square miles or approximately 45 percent of Caroline County. Much of the land is in agricultural production. There is considerable residential and commercial development, both within the older towns and villages, and in new subdivisions.


SOIL ASSOCIATIONS AND SEPTIC TANK SUITABILITY

SUITABLE:

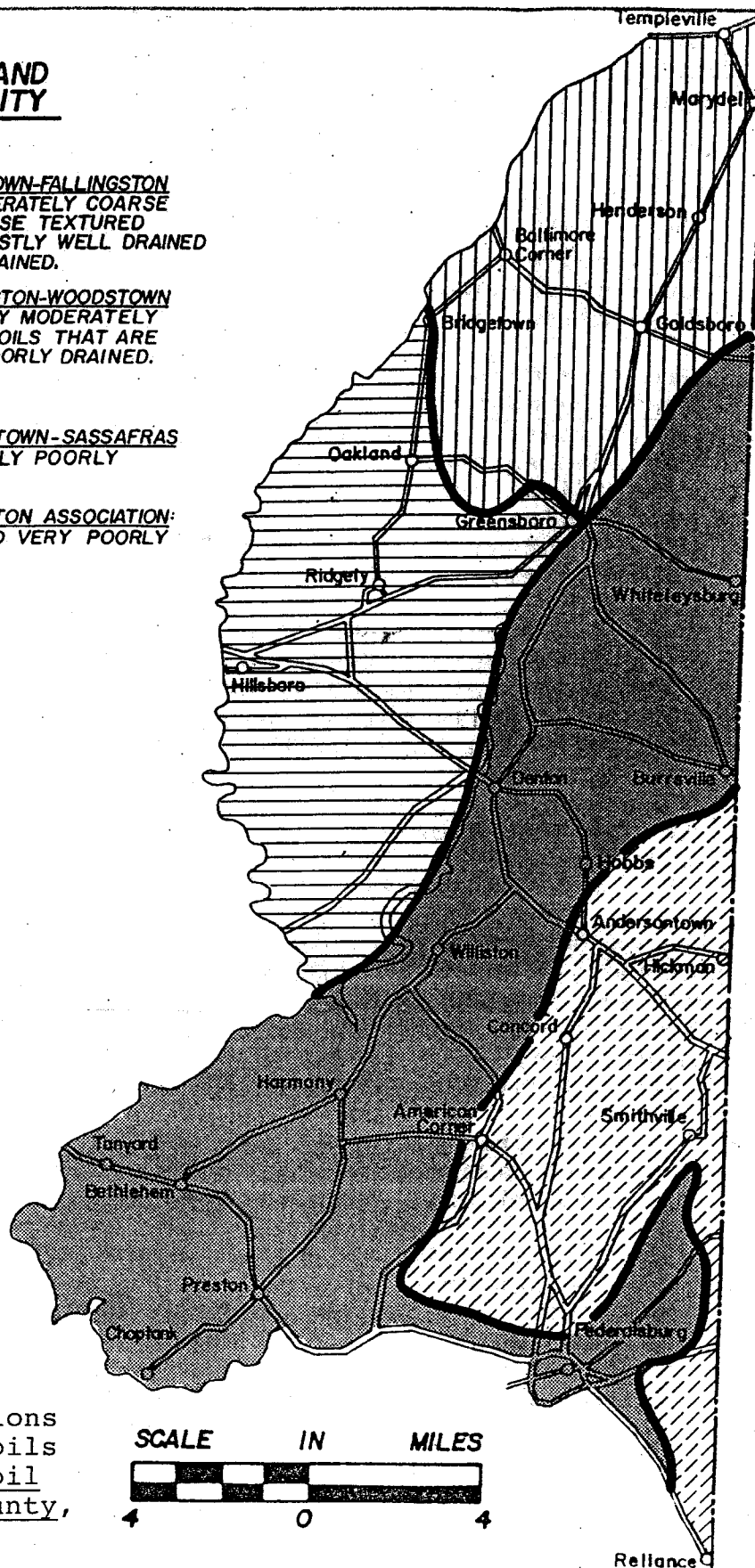
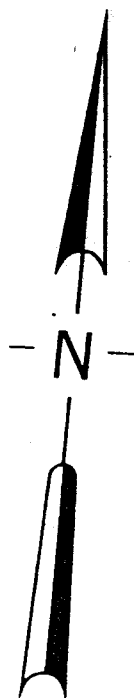
 **SASSAFRAS-GALESTOWN-FALLINGSTON ASSOCIATION:** MODERATELY COARSE TEXTURED AND COARSE TEXTURED SOILS THAT ARE MOSTLY WELL DRAINED TO EXCESSIVELY DRAINED.

 **SASSAFRAS-FALLINGSTON-WOODSTOWN ASSOCIATION:** MOSTLY MODERATELY COARSE TEXTURED SOILS THAT ARE WELL DRAINED TO POORLY DRAINED.

UNSUITABLE:

 **FALLINGSTON-WOODSTOWN-SASSAFRAS ASSOCIATION:** MOSTLY POORLY DRAINED SOILS.

 **POCOMOKE-FALLINGSTON ASSOCIATION:** POORLY DRAINED AND VERY POORLY DRAINED SOILS.



NOTE: This map shows general soil associations only. For detailed soils information see the Soil Survey of Caroline County, Maryland.



NOTE:

SOIL IDENTIFICATIONS TAKEN FROM "SOIL SURVEY OF CAROLINE COUNTY, MARYLAND", JANUARY, 1964.

CAROLINE COUNTY
COMPREHENSIVE WATER
AND SEWERAGE PLAN

GENERAL SOIL MAP

PLATE II-6

These soils are easily tilled and well suited for truck farming and residential development with conventional on-site sewage disposal systems.

These characteristics of the Sassafras-Galestown-Fallsington soil association make it the most suitable for rural residential development (utilizing on-site septic tank disposal systems). It also contains some of the best farmland in the County.

2. Sassafras-Fallsington-Woodstown Association - These soils are moderately coarse textured soils which vary from well drained to poorly drained.

This association is found in the Tuckahoe Neck, and an area extending north of Ridgely. It is bounded by Tuckahoe Creek on the west, the Choptank River on the east, and Cherry Lane and River Road on the north at a line approximately between Greensboro and Bridgetown. It contains the towns of Hillsboro, Ridgely and Greensboro.

The association covers approximately 67 square miles, or 21 percent of Caroline County. Most of the land is in agricultural production. There is also considerable residential and commercial development.

These soils have a greater ability to retain moisture and nutrients, making them more suitable for agriculture than the soils of the Sassafras-Galestown-Fallsington association. In general, this association is also well suited for septic tank absorption fields.

These characteristics of Sassafras-Fallsington-Woodstown soils make them the best farmlands in Caroline County for general crop production. They are also well suited for rural residential development, although somewhat less so than the Sassafras-Galestown-Fallsington association.

3. Fallsington-Woodstown-Sassafras Association - These soils are moderately coarse, poorly drained soils.

This association is located in the southeast corner of the County bordering the Delaware State Line, and generally within the Marshyhope Creek drainage basin. It lies south of Burrsville.

The area covered by this association is approximately 54 square miles, or 17 percent of Caroline County. Much of the land within this association is forested, and there is relatively little residential development.

Because of poor soil drainage, extensive drainage systems are necessary before the soils can be productive

croplands. Percolation characteristics for underground sewage disposal systems range from poor to bad. Extensive agricultural drainage systems have been constructed in this area in recent years as part of the Marshyhope Creek Watershed Project.

Generally, these soils are rather poorly suited for both rural residential development and intensive cropping. Where adequate drainage cannot be provided, they are best suited for forestry and wildlife uses.

4. Pocomoke-Fallsington Association - These are predominantly poorly drained or very poorly drained clayey soils.

These soils are located in the northern tip of Caroline County. The southwest border of the area is roughly a line from Bridgetown to Greensboro. The southeast border of the area is roughly a line from Greensboro to the Delaware line east of Goldsboro. Located within this area are the towns of Goldsboro, Henderson, Marydel and Templeville.

The area covered by this association is approximately 54 square miles, or 17 percent of Caroline County. Much of the land is wooded, although there are a number of towns and considerable residential development as noted above. None of the communities located within this area are serviced by central water and sewerage facilities, except for the Caroline Acres Mobile Home Park. Septic system failures are common in parts of the area.

Extensive drainage is required for agricultural use of much of this land. In recent years a considerable amount of drainage work has been done as part of the Upper Choptank Watershed Project.

Generally, the soils within this association are poorly suited for both agricultural use and rural residential development.

As noted above, soil suitability often creates an inherent conflict between development and agriculture. In Caroline County all rural development will utilize on-site sewage disposal systems (primarily septic tanks). Land which is suitable for septic tanks must have well drained soils and a deep seasonal high water table. Unfortunately, these are also important characteristics of prime agricultural lands.

Soil limitations of individual soils for septic tank absorption fields are shown on Table II-35. Ratings of "slight" limitations will generally not adversely affect septic tank systems when properly installed.

"Moderate" rated limitations will generally adversely affect

the functioning of septic tank absorption systems. Correction of these limitations will increase installation and maintenance costs.

"Severe" rated limitations will generally adversely affect or prevent the functioning of septic tank absorption systems.

Septic tank systems are discussed further in the following Section II-3.D., "The Man-Made Environment, Public Facilities, Sewerage Systems".

Inadequate soil drainage is the chief soil management problem for agriculture in Caroline County. Only about 17 percent of all land in the County has soils which need no special management practices. About 45 percent of the land requires some form of artificial drainage management.

Other soil limitations include low fertility, which affects 18 percent of the land, and erosion potential, which affects 19 percent.

TABLE II-35
CAROLINE COUNTY SOIL LIMITATIONS FOR SEPTIC TANK ABSORPTION FIELDS

Soil Features and Estimated Degree of Limitations		Degree of Limitations		
Soil Name	Period to Test	Soil Drainage Class	Flooding	Overall Soil Rating
Bayboro silt loam	Jan. 1 - April 30	Severe	Moderate	Severe
Bibb silt loam	Do not test/serious flooding	Severe	Severe	Severe
Elkton	Jan. 1 - April 30	Severe	Slight	Severe
Fallsington soils	Jan. 1 - April 30	Severe	Slight	Severe
Galestown loamy sands	Anytime	Slight	Slight	Slight
Johnston loam	Do not test/serious flooding	Severe	Severe	Severe
Klej loamy sands	Jan. 1 - April 30	Moderate	Slight	Moderate
Lakeland	Anytime	Slight	Slight	Slight
Made land	Varies	Varies	Varies	Varies
Matapeake silt loams, 0 to 5 percent slopes	Anytime	Slight	Slight	Slight to Moderate
Matapeake silt loams, 15 to 30 percent slopes	Anytime	Slight	Slight	Severe
Mattapex silt loams, 0 to 5 percent slopes,	Jan. 1 - April 30	Moderate	Slight	Severe
Mattapex silt loams, 15 to 30 percent slopes	Jan. 1 - April 30	Moderate	Slight	Severe
Mixed alluvial lands	Do not test	Severe	Severe	Severe
Much	Do not test	Severe	Severe	Severe
Othello silt loams	Jan. 1 - April 30	Severe	Slight	Severe

TABLE II-35 (CONT.)
CAROLINE COUNTY SOIL LIMITATIONS FOR SEPTIC TANK ABSORPTION FIELDS

Soil Features and Estimated Degree of Limitation						
Soil Name	Period to Test	Soil Drainage Class	Permeability within first four feet		Overall Soil Rating	
			Flooding	Slope		
Plummer loamy sands	Feb. 1 - April 30	Severe	Slight	Slight ² /	Slight	Severe
Pocomoke loams	Feb. 1 - April 30	Severe	Moderate ¹ /	Slight	Slight	Severe
Pocomoke sandy loams	Feb. 1 - April 30	Severe	Moderate ¹ /	Slight	Slight	Severe
Portsmouth silt loams	Feb. 1 - April 30	Severe	Moderate ¹ /	Severe	Slight	Severe
Sassafras loams, 0 to 5 percent slopes	Anytime	Slight	Slight	Slight	Slight	Slight
Sassafras loams, heavy substratum	Anytime	Slight	Slight	Slight	Slight	Slight
Sassafras loamy sands	Anytime	Slight	Slight	Slight ² /	Slight	Slight
Sassafras loamy sands, 15 to 30 percent slopes	Anytime	Slight	Slight	Slight ² /	Severe	Severe
Sassafras sandy loams	Anytime	Slight	Slight	Slight	Slight	Slight
Sassafras sandy loams, heavy substratum, 0 to 5 percent slopes	Anytime	Slight	Slight	Slight	Slight	Slight
Swamp	Do not test	Severe	Severe	Variable	Slight	Severe
Tidal Marsh	Do not test	Severe	Severe	Variable	Slight	Severe
Woodstown loams, 0 to 2 percent slopes	Feb. 1 - April 30	Moderate	Slight	Slight	Slight	Moderate
Woodstown laoms moderately eroded	Feb. 1 - April 30	Moderate	Slight	Slight	Slight	Moderate

1/ Subject to ponding of short duration in depressions.

1/ Subject to ponding of short duration in depressions lacking outlets.

2/ These soils are so sandy and rapidly permeable throughout that the possibility of polluting nearby streams, lake, springs, and shallow wells is a special consideration.

FROM: Caroline County Comprehensive Water & Sewerage Plan
March, 1984

3. Agricultural Lands

In 1982 approximately 64 percent of the land area of Caroline County, or 131,094 acres, was farmland. Of this farmland, 107,719 acres, or 53 percent of the County, was cropland. Woodland on farms totaled 18,482 acres, or 9 percent of the County land area.

As discussed in the preceding section on Soils, quality farmlands are located throughout Caroline County. However, they are concentrated primarily within two of the four soil associations, the Sassafras-Fallsington-Woodstown and the Sassafras-Galestown-Fallsington associations. The location of these associations was shown on Plate I-6.

Caroline County has been an active participant in the Maryland Agricultural Land Preservation Program. This is a voluntary program in which landowners may petition to place their farms in agricultural preservation districts. These districts provide a temporary reserve of at least 5 years duration, during which the land cannot be developed in a non-agricultural use.

Once in an agricultural preservation district, the landowner can apply for the second stage of the program. This involves the sale of an agricultural preservation easement to the State which permanently reserves the farm for agricultural uses only.

As of April, 1986, Caroline County had approved 86 agricultural preservation districts totalling 12,618.44 acres. This is the largest participation in the program of any county on the Eastern Shore.

Agricultural preservation easements have been purchased on 19 farms in Caroline County through FY 1984-85 (June, 1985). These easements cover 2,963.3 acres of farmland.

While the accomplishments under the Maryland preservation program have been impressive, protection has so far been extended to only a small percentage of farmland in Caroline County. Only 9.6 percent of the County's farmland is in agricultural districts, and 2.3 percent is permanently protected by easement purchases.

These participation percentages will grow in future years, provided that State funding of the program continues. However, at best the program will ultimately protect only a small portion of Caroline County farmland. Therefore, while the program is extremely valuable, it alone is not sufficient protection for agricultural lands.

Agricultural land is an economic resource which supports the largest industry in Caroline County. It also provides the

historical and cultural basis for the rural life style so valued by the residents.

Unfortunately, agricultural lands are often viewed as a temporary condition, where property is held until it can be converted to other developed land uses. It is true that agricultural land will have to be developed in Caroline County in the coming years. Necessary highways, industry, business, housing, parks and other uses will all require land, most of which will be shifted from agricultural use.

The effect of these shifts can be seen between 1978 and 1982, when the amount of land in farms declined by over 2,100 acres. Such conversions of agricultural land will by necessity continue. However, it is important that these conversions be kept to the minimum required, and that they be located so as to least disrupt the integrity of farming communities.

Failure to properly control the conversion of agricultural lands will ultimately diminish the vigor of the agricultural industry in Caroline County. If Caroline is to remain a rural county, proud to be called the "Green Garden County", then agricultural lands must be protected and conserved.

4. Forest Lands

In its original natural state Caroline County was completely forested. Native forests consisted of a variety of hardwood forest associations in the northern part of the County, and mixed pine and hardwood in the southern portions of the County. The northern extent of loblolly pine was an east-west line crossing the County near Denton.

These native forests were cleared over the years to provide land for farms, towns and other uses. Some cleared lands were later allowed to revert to forest due to poor suitability for farming. While some forest lands had good soil suitability for cultivation, most were of marginal quality due to wetness or low fertility.

In recent years forest lands have once again come under clearing pressure. High farm product prices and increasing land values in the 1970's in particular encouraged the clearing of large acreages of woodland for cultivation. The construction of extensive public drainage systems and advent of economical irrigation made feasible the tillage of previously marginal lands.

The result of these trends was a considerable loss of farm woodlands. Between 1969 and 1982, farm woodland declined by 6,249 acres from 24,731 to 18,482 acres.

Much of the forest land most suitable for conversion to crop land has now been cleared. This, combined with the current problems in the farm economy, have led to a slowing in the rate of forest land conversion. It is likely that the rate of conversion will increase once again if the farm economy improves.

Considerable acreage of forest land has been converted to residential and other developed uses in recent years. Forest lands have been attractive sites for residential subdivisions.

The recent rapid conversion of forest lands to other land uses has two significant effects. First, there is a total loss of forestry resources. Second, the remaining forest lands are of increasingly marginal quality for forest management as the better lands are converted.

The most recent published forest resource data for Caroline County is shown on Table II-36. These figures are compiled by the Maryland Forest Service. Updated forest resource data should be available later in 1986.

Caroline County's forest lands provide a number of benefits. They are an economic asset, producing marketable timber for lumber and pulp. They are sources of energy, for the

growing number of wood burning homes. They are soil conservers, helping to reduce both wind and water erosion. They are wildlife habitat for many varieties of species. And, not the least, they are aesthetically valuable. The mix of woodland and cultivated fields provides much of the character of the Caroline County landscape.

TABLE II-36
FOREST RESOURCES, 1974
CAROLINE COUNTY, MARYLAND

	1976 -----
Forest Land (1,000 Ac.)	
Non-Commercial	1.0
Commercial	70.8
Total Forest Area	71.8
Percent of County Land	
Non-Commercial	0.5
Commercial	34.5
Total Forest Area	35.0
Growing Stock Volume (MCF)	
Softwoods	32.0
Hardwoods	72.4
All Species	104.4

Source: The Forest Resources of Maryland
Maryland Forest Service, 1980

5. Minerals

Known mineral resources in Caroline County are limited to sand and gravel. These materials originated as part of the continental outwash deposited on the coastal plain over a period of millions of years.

Mineable deposits of sand and gravel occur in scattered locations throughout Caroline County, although they tend to be concentrated near streams and rivers. Resources of interest include both sand and gravel deposits, as well as a graded mixture known as bank-run gravel. This material is used for structural base for roads and other construction.

The geology of Caroline County makes it impossible to identify mineable sand and gravel deposits except by exploratory excavation or drilling. Once located, the irregular size and shape of deposits makes it difficult to predict their mineable extent.

There is presently no detailed geologic data for Caroline County which can be used to identify and map mineable deposits of these mineral resources. Therefore, policies and regulations cannot be developed at this time for the purposes of resource protection or reservation from encroachment by other land uses.

Most existing and historical gravel and sand pits were located near streams. Therefore, it can be assumed that most, but not all, mineable deposits are also so located. Many of these sites within the tidal reaches of the Choptank River, Tuckahoe Creek and Marshyhope Creek, and their tributaries, will be located within the Chesapeake Bay Critical Area.