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DRAFT
COMPREHENSIVE LAND USE PLAN,
NEW KENT COUNTY, VA

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TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
COMMUNITY PROFILE.....	3
Location.....	3
Historical Background.....	3
Population and Housing Characteristics.....	4
Economic and Employment Characteristics.....	12
Existing Land Use.....	16
Transportation.....	21
Community Facilities/Utilities.....	25
Historical and Archaeological Resources.....	28
NATURAL RESOURCES INVENTORY.....	32
Topography.....	32
Slope.....	33
Hydrology.....	33
Wetlands.....	37
Flood Plains.....	38
Soils.....	38
Forests.....	40
Prime Farmland.....	41
Rare and Endangered Species.....	41
DEVELOPMENT ASSESSMENT.....	44
GOALS AND OBJECTIVES.....	53
FUTURE LAND USE PLAN.....	58
Introduction and Basic Assumptions.....	58
Land Use Requirements.....	59
Development Strategies.....	61
Future Land Use Map.....	64
Future Land Use Categories.....	68
Land Use and Development Policies.....	73
IMPLEMENTATION PROGRAM.....	77
Land Development Regulations.....	77
Additional Planning Needs.....	81
Capital Improvement Program.....	82
Conclusion.....	82
APPENDIX.....	84

LIST OF MAPS

Map

- 1 Location Map
- 2 Existing Land Use
- 3 Transportation Network
- 4 Community Facilities/Utilities
- 5 Historic and Archaeological Sites
- 6 Steep Slopes
- 7 Flood Plains and Surface Water Drainage
- 8 Wetlands
- 9 Soil Suitability for On-Site Sewage Treatment
- 10 Soil Productivity for Timber Production
- 11 Prime Agricultural Areas
- 12 Rare and Endangered Species
- 13 Growth Management Map
- 14 Future Land Use

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1 Population Change in New Kent County and Planning District 15 Region: 1940-1980, 1985.....	5
2 Population Projections for New Kent County and Planning District 15: 1990, 2000, and 2010.....	6
3 Historic and Projected Average Household Size in New Kent County, Planning District 15, and the State: 1970-2010.....	7
4 Historic and Projected Housing Stock in New Kent County: 1970-2010.....	8
5 Housing Types in New Kent County and Planning District 15 Region: 1970 and 1980...	9
6 Year Housing Structure Was Built in New Kent County and Planning District 15 Region: 1939-1978.....	10
7 Building Permit Data -- Type of Dwelling in New Kent County: 1979-1988.....	11
8 Median Household Income Projections in New Kent County, Planning District 15, and the State: 1979, 1987-1990.....	12
9 Type of Establishment and Number of Employees Per Establishment in New Kent County: Quarter Ending, March 31, 1988.....	14
10 Nonagricultural Employment Projections for New Kent County: 1980-2010.....	15
11 Reported and Historical Rare and Endangered Species, New Kent County.....	43
12 Existing and Projected Land Use Requirements, New Kent County, 1989 and 2010.....	60

INTRODUCTION

New Kent County stands on the edge of an exciting future. The twenty-first century is ten short years away. There is talk of major development in and around the County. In order to be prepared to take advantage of what the future has to offer, the County must begin to plan for that future now.

The County is blessed with several advantages. Interstate 64 provides easy access to nearby population centers, yet residents can enjoy the relaxed life style of the country. Land is available for building homes. The air is clear.

There are issues that need to be addressed, however. Employment and shopping opportunities are limited. Housing opportunities consist primarily of single family homes on large lots. Perhaps the greatest issue is how to continue a pattern of steady growth without being overwhelmed by this growth.

In order to address these and other issues, New Kent County, in cooperation with the Richmond Regional Planning District Commission, has prepared this Comprehensive Land Use Plan.

PURPOSE OF THE LAND USE PLAN

The purpose of this Comprehensive Land Use Plan is to serve as a framework for guiding future development. The Plan contains a series of goals, objectives, and strategies describing how and where the County wants to grow. Once adopted by the County, the Plan will be a guide that will allow public and private land owners to coordinate future development decisions within a shared concept of what the County can be.

The future is never certain, however. As conditions change, the Plan will need to be reviewed and updated. State law requires that this updating take place at least every five years.

SCOPE OF THE PLAN

Three terms can be used to describe the scope of this Comprehensive Land Use Plan: general, long-range and comprehensive. The Plan is general in that it contains goals, objectives and strategies that can be used to guide future development decisions. The Plan does not indicate when or how specific parcels of land should develop. Such details are addressed in specific ordinances and policy documents such as the zoning and subdivision controls, capital improvement plans and so forth.

The Plan is long-range in that it deals with anticipated development over the next 20 years. Looking that far into the future is difficult, especially in a rapidly developing area. A long-range view is necessary, however, if the County is to attempt to guide development and maintain some level of control over its destiny.

Finally, the Plan is comprehensive in that it encompasses the entire geographic area of the County and all types of land uses. The Plan examines the natural and man-made environment. Recommendations cover residential, commercial, industrial and publicly owned land.

HOW THE PLAN IS ORGANIZED

The Comprehensive Land Use Plan is organized into three major sections. Section I, the Community Profile, includes an inventory and analysis of factors that have influenced past land use trends and will influence development in the future. These are population and economic base, natural resources, land uses, community services and facilities, historical and archeological resources, and transportation. This section also contains an examination of regional and local development trends and assessment of the County's assets and liabilities.

Section II is the part of the Plan that looks ahead to the future. This section sets forth future development goals and objectives. A series of strategies and policies that can assist in reaching these development objectives is included. A future land use map is presented as a means to visualize how the County could develop if these objectives and strategies are followed.

Section III outlines a series of tools and actions the County can use to implement the Plan. The Plan is of little use unless the County's development objectives are translated into land use regulations and procedures. Also discussed in this section are other planning efforts necessary to meet the future needs of the County.

COMMUNITY PROFILE

LOCATION

New Kent County is located in the Virginia Coastal Plain between Richmond and Hampton Roads. County boundaries come within 15 miles of downtown Richmond and 45 miles of Newport News - Hampton.

The County contains a land area of 212 square miles and is bounded by the Pamunkey and York Rivers to the north and the Chickahominy River to the South. Surrounding the area are the Counties of Hanover, King William, King and Queen, James City, Charles City and Henrico. (Refer to Map 1).

HISTORICAL BACKGROUND

A summary of the historical development of New Kent County provides information about where development in the County first occurred and why the County developed a particular way. Planners use this information to understand current development patterns and areas of population concentration.

Exploration of New Kent County began with Captain John Smith's visit to the Indian village of Cinguateck (the site of present West Point) in 1607. For the next several years, fighting between the English and the Indian natives occurred throughout the Pamunkey River area. After the Indian War of 1644, the Indians were driven out of the village and English settlement of New Kent County began.

New Kent County, named for Kent County in England, was established from York and James City Counties in 1654. When the County was first formed, its territory encompassed what are now the Counties of King and Queen, King William, Caroline, Hanover, and portions of Spotsylvania and James City.

New Kent County was a prosperous community in colonial times. Ferries traveling the Pamunkey and York Rivers were important transportation links which helped encourage economic growth in the area. Population started to concentrate in what is now known as Eltham when a few plantations were established and West Point developed as a port.

The first town, called Brick House, was established in the vicinity of Eltham in 1680. Brick House, along with a tobacco warehouse, developed as the commercial center for the County. The Brick House also housed the County courts and other governmental offices. Unfortunately, the County records burned when Bacon's Rebellion ended at the Brick House in 1687. In 1748, the only

other colonial town in the County, Cumberland, lost by three votes to Williamsburg to become the capital of the Virginia colony. After the Revolutionary War the settlers in Cumberland and the Brick House moved out.

The 1800s were a dormant period for New Kent County. The great plantation society did not develop as a significant part of the County's history because of the steep slopes of the land. Three engagements of the Civil War took place in the County in the month of May, 1862. After the Civil War, another out-migration of population occurred.

In the late 1800's, people started gradually moving into the County again. Polish immigrants settled in the area of Barhamsville. The placement of railroad tracks helped establish Providence Forge as the commercial and industrial center of the County.

Transportation has continued to assist the development of New Kent County. When Route 60 was constructed, many people moved into the County. The placement of Interstate 64 in the County has also influenced population growth.

POPULATION AND HOUSING CHARACTERISTICS

The analysis of population and housing characteristics in New Kent County provides essential information to the planning process. By examining historical trends and future projections, decision makers in the County can better comprehend how the community is growing and changing. This insight can be used to help determine the needs of the community and plan for the timing and location of future development.

Demographic information was primarily drawn from the United States Bureau of Census and the Richmond Regional Planning District Commission. Where appropriate, County data is compared to regional and State figures to examine the relationship of the County in regard to regional and State growth and development.

Population Change

From 1940-1960, the population of New Kent County virtually stayed the same, increasing from 4,092 persons in 1940 to 4,504 persons in 1960. (Refer to Table 1.) From 1960-1970, the County population increased by 17.6 percent, while the region experienced a population increase of 34 percent during the same time period.

Substantial growth in the County's population started to occur after 1970. The population doubled in number from 5,300 persons in 1970 to 10,690 persons in 1985. Much of this population growth occurred in the decade of 1970-1980 when the County experienced a

65.6 percent increase. From 1980-1985, the population grew by another 21.7 percent. Population growth in the region increased at a slower rate than the County during the 1970s and 1980s.

The United States Census breaks down population statistics by magisterial district. New Kent County is composed of four magisterial districts: Black Creek district, St. Peters District, Cumberland District, and Weir Creek district. The Black Creek and St. Peters districts make up the western portion of the County, the Cumberland district makes up the mid section of the County, and the Weir Creek district makes up the eastern portion of the County.

In 1970, the County population was almost equally distributed between all four districts. Yet, by 1980, population figures indicated significant increases in the number of people choosing to live in the western portion of the County. Population in the Black Creek and St. Peters districts increased by 106 percent and 81 percent respectively, while population in the Cumberland and Weir Creek districts only increased by approximately 40 percent.

TABLE 1

Population Change in New Kent County and Planning District 15 Region: 1940-1980, 1985

Year	New Kent County	Planning District 15
1940	4,092	---
1950	3,995	328,050
1960	4,504	408,494
% change 1940-1960	10.0	---
1970	5,300	547,542
% change 1960-1970	17.6	34.0
1980	8,781	632,015
% change 1970-1980	65.6	15.4
1985	10,690	686,430
% change 1980-1985	21.7	8.6
Note: No information was given for categories displaying '---'.		
Source: U.S. Census; <u>Regional Data Report Update (1988)</u> , Richmond Regional Planning District Commission, Unpublished.		

Population Characteristics

1980 figures indicated the median age for New Kent County residents was 30.0 years old. This statistic was very comparable to regional and state data; the region showing a median age of 30.3 years and the state, 29.8 years of age.

During the past twenty years, the racial composition of the population has changed dramatically. From 1970 to 1980 the percentage of whites in the County increased from 55 percent to 73 percent. The racial composition of New Kent's population in 1980 was very similar to the region.

The educational level of County residents has improved since 1970. The percentage of high school graduates increased from 28.9 percent in 1970 to 54.9 percent in 1980. The percentage of persons who completed college also increased from 10 percent to 22 percent from 1970 to 1980. However, data indicated a higher percentage of persons completing high school and college in the region than the County.

Population Projections

Projections by the Richmond Regional Planning District Commission indicate continued population growth in New Kent County. The projections show the County's population growing approximately twice the rate as the region in the period of 1990 -2010. (Refer to Table 2.) By 1990, 12,600 persons are expected to live in New Kent County. The population will increase by an additional 26.9 percent by the year 2000 and another 20.3 percent by 2010 to total 19,250 persons.

TABLE 2

Population Projections for New Kent County and Planning District 15 Region: 1990, 2000, and 2010

Year	New Kent County	Planning District 15
1990	12,600	740,850
2000	16,000	833,900
% of change 1990-2000	26.9	12.5
2010	19,250	930,800
% of change 2000-2010	20.3	11.6
Source: <u>Regional Data Report Update (1988)</u> , Richmond Regional Planning District Commission, Unpublished.		

Historic and Projected Average Household Size

Household size is decreasing in New Kent County. In 1970, data indicated the household size to be 3.51 persons per household. Household size decreased to 2.95 persons per household in 1980. Projections continue to show a decline in household size for the County. (Refer to Table 3.) Although data projections indicate household size for the County in the future, household size in New Kent will still exceed the region and the State.

TABLE 3

Historic and Projected Average Household Size in New Kent County, Planning District 15 Region, and the State: 1970-2010

Jurisdiction	Year				
	1970	1980	1990	2000	2010
New Kent County	3.51	2.95	2.72	2.57	2.47
Planning District 15	3.11	2.70	2.56	2.43	2.33
State	3.20	2.77	2.63	2.49	2.39
Source: <u>Regional Data Report Update (1988)</u> , Richmond Regional Planning District Commission, Unpublished.					

Number of Housing Units and Housing Unit Projections

In 1970, there was a total of 1622 housing units in the County. The number of housing units increased to 3171 in 1980, an increase of 95 percent. (Refer to Table 4.)

Future housing needs can be developed using projected population, household size, and vacancy rate numbers. Based on projections by the Richmond Regional Planning District Commission, the County will need an additional 3,869 housing units by 2010, an average annual increase of 129 units per year between 1980-2010.

TABLE 4**Historic and Projected Housing Stock in New Kent County: 1970-2010**

Jurisdiction	Year				
	1970	1980	1990	2000	2010
New Kent County	1,622	3,171	4,810	6,460	7,040
Source: <u>Regional Data Report Update (1988)</u> , Richmond Regional Planning District Commission, Updated.					

Type of Housing Unit

Census data indicated that the majority of housing units in New Kent County are single family dwellings. In 1970, 99 percent of the housing units were single family, while 1 percent of the units were duplex or multi-family dwellings. (Refer to Table 5.) Thirteen percent of these single family dwellings were mobile homes. In 1980, housing types were similarly distributed: the percentage of single family dwellings declined to 95 percent, with mobile homes decreasing from 13 to 10 percent, and the percentage of duplex and multi-family units increased to 5 percent.

In 1980, statistics indicated that single family residential development had developed more intensively in the County than the region. Single family dwellings composed 85 percent of the County's housing stock versus 71 percent of the region's housing stock. The County also had a greater percentage of mobile homes. On the other hand, a substantial amount (27%) of housing in the region was developed as duplexes and multi-family units compared to only 5 percent of the County's housing stock.

TABLE 5

**Housing Types in New Kent County and Planning District
15 Region: 1970 and 1980**

Type of Dwelling	New Kent County Year				PDC 15 Year
	1970	Percent	1980	Percent	1980 Percent
Total	1,622	100	3,176	100	100
Single Family	1,396	86	2,696	85	71
Duplex and					
Multi-family	18	1	150	5	27
Mobile Home	208	13	330	10	2

Source: U.S. Census

Housing Characteristics

Home ownership is more prevalent in New Kent County than the region. In 1980, approximately 78 percent of the housing stock in the County was owner occupied, while only 60 percent of the housing stock in the region was owner occupied. However, the median value of housing in the County, \$43,200, was lower than the value of housing in the region (\$47,200) and the State (\$48,000). Renters in the County were paying \$155 per month for housing in 1980, while the average rent in the region and State was slightly over \$200. In 1980, vacant housing units accounted for 8 percent of the housing stock in the County.

Age of Structure

Most of the housing in New Kent County has been constructed in the past thirty years. The 1980 Census indicates that 27 percent of the housing stock in the County was built in the 1960s. (Refer to Table 6.) Even more housing units (44 percent of the total) were constructed from 1970 to 1979. Regional data indicates that residential development occurred earlier in the region and only increased slightly during the 1970s.

TABLE 6**Year Housing Structure Was Built in New Kent County and
Planning District 15 Region: 1939-1978**

Year	New Kent County		PDC 15	
	Number	Percent	Number	Percent
Total	2,937	100	230,257	100
1939 or earlier	340	11	43,018	19
1940-1949	224	8	27,010	12
1950-1959	305	10	42,486	18
1960-1969	784	27	54,821	24
1970-1978	1,284	44	62,922	27

Source: U.S. Census

Housing Conditions

Figures on housing units lacking complete plumbing facilities and number of persons per room are two indicators used to evaluate housing conditions. Statistics indicated a substantial increase in the percentage of housing units having complete plumbing facilities, 70 percent in 1970 to 92 percent in 1980.

Housing with more than 1.00 person per room signifies overcrowding, while over 1.51 persons per room indicates severe overcrowding. Housing in the County has become less overcrowded during the past twenty years. Persons having their own room increased from 86 percent in 1970 to 96 percent in 1980.

Housing conditions in the County compared quite favorably to the region. In 1980, 94 percent of the housing units in the region had complete plumbing facilities and 97 percent of these units had less than one person per room.

Building Permit Data

Residential development has continued to increase in New Kent County during the 1980s. A review of the building permit data from 1980-1988 indicates that a total 1,374 permits have been issued. (Refer to Table 7.) Building permits increased significantly after 1985, averaging 200 per year. Ninety percent of these permits were for single family dwellings and the remaining 10 percent were for mobile homes.

Projections indicated that 96 housing units per year would be necessary to meet future housing demand in New Kent County. Since 1984, the number of building permits that have been issued in the County has far exceeded the projected housing demand.

TABLE 7

Building Permit Data -- Type of Dwelling in New Kent County: 1979-1988

Year	Type of Dwelling				TOTAL
	Single Family	Duplex	Multi Family	Mobile Home	
1979	107	0	0	9	116
1980	80	0	0	18	98
1981	67	0	0	7	74
1982	62	0	0	8	70
1983	103	0	0	23	126
1984	120	0	0	32	152
1985	120	0	0	15	135
1986	189	0	0	24	213
1987	209	0	0	0	209
1988	181	0	0	0	181
TOTAL	1,238	0	0	136	1,374
Percent of Total	90	0	0	10	100
Source: <u>Regional Data Report</u> , Richmond Regional Planning District Commission.					

Summary

Population and housing data reveals that the process of suburbanization has begun in the western portion of New Kent County. Since the 1970s the County has experienced substantial population growth and residential development. Projections anticipate these growth trends to continue in the future. As a consequence, the future land use plan becomes a critical guide to County officials and decision makers.

ECONOMIC AND EMPLOYMENT CHARACTERISTICS

The following section will discuss the incomes, jobs, work places, and employment opportunities of current and future residents of New Kent County. By analyzing the local economy of the County, one can begin to understand existing development activities and the development potential of the community.

A majority of the information has been gathered from the United States Census and the Virginia Employment Commission. Other data sources include the Richmond Regional Planning District Commission and the University of Virginia Center for Public Service. In some instances, regional figures are also provided to draw comparisons between the local and regional economies.

Household Income Projections

The median household income in 1979 for New Kent County was \$18,629 in 1979, slightly higher than the region (\$18,486) and higher than the State (\$17,475). (Refer to Table 8.) Projections provided by the Center for Public Service show County residents continuing to earn higher incomes than either the region or State. From 1979 to 1990, the median household income for County residents is projected to increase by 67 percent, totaling \$31,041.

TABLE 8

Median Household Income Projections in New Kent County, Planning District 15, and the State: 1979, 1987-1990

Jurisdiction	Year				
	1979	1987	1988	1989	1990
New Kent County	\$18,629	\$26,292	\$27,755	\$29,359	\$31,041
PDC 15	\$18,486	\$24,360	\$25,719	\$27,214	\$28,769
State	\$17,475	\$22,759	\$24,036	\$25,427	\$26,874
Source: U.S. Census; University of Virginia, Center for Public Service, "Projections of Virginia Family and Household Income by Locality, 1979, 1987-1990."					

Poverty Status

Statistics show that only 9 percent of the County population in 1979 was living below poverty level. Thirty percent of the people living in poverty had related children under 18 years old, while 23 percent were 60 years of age or over.

Labor Force Characteristics

Sixty-four percent of New Kent County residents were employed in 1980. Males were more active in the labor force than women. Approximately 75 percent of the males in the County held jobs in 1980, while slightly over one half of the women (53.2%) in the County were employed. The County's unemployment rate was 3.3 percent in 1980. Labor force characteristics in the region were very similar to County statistics.

A majority of local residents were employed outside New Kent County in 1980. Roughly 80 percent of the population traveled outside the County to work, driving an average of 31.1 minutes to the job. Approximately 48 percent of the New Kent working population commuted to Richmond, while 15 percent of the residents worked in Henrico County. The remaining 37 percent were scattered throughout the surrounding region.

Statistics on commuting patterns were quite comparable to other rural jurisdictions in the region in 1980. Over 70 percent of the residents in Charles City County and Powhattan County worked outside their residences and had travel times of over thirty minutes to work.

Occupation refers to the type of job of an employed person. Statistics for the County in 1980 indicated that the top three occupational categories were technical sales and administrative support (28%), precision production, craft and repair (20%), and operators, fabricators and laborers (20%).

Statistics in the region compared somewhat favorably to County figures. Thirty-five percent of the regional population were employed in technical sales and administrative support occupations and 16 percent of the population were employed as operators, fabricators, and laborers. However, the region had 24 percent of its workers employed in managerial and professional specialty occupations compared to only 17 percent of New Kent workers employed in managerial and professional specialty occupations.

The greatest percentage of County workers was employed in the following industries in 1980: services (24%), manufacturing (21%), retail trade (12%), and public administration (12%). These industries also employed the greatest number of workers in the region.

Existing Economic Base

A total of 161 establishments were in operation in New Kent County in March, 1988. (Refer to Table 9.) These operations employed 1,525 people. The most prevalent types of businesses in the community were construction (25%), services (24%), and retail trade (18%). Service and retail establishments also employed a substantial number of people, 24 percent and 17 percent

respectively. However, government was the biggest employer in the County, making up 30 percent of the County's employment base.

TABLE 9

Type of Establishment and Number of Employees Per Establishment in New Kent County: Quarter Ending, March 31, 1988

Type of Industry	New Kent County			
	Establishments		Employees	
	Number	Percent	Number	Percent
Total	161	1 0	1,525	100
Agriculture	4	2	35	2
Mining	0	0	0	0
Construction	40	25	149	10
Manufacturing	20	13	203	13
Transportation, Communication, Public Utilities	3	2	4	.5
Wholesale Trade	7	4	41	3
Retail Trade	29	18	257	17
Finance, Insurance, & Real Estate	(3)	2	(4)	.5
Services	39	24	368	24
Government	16	10	464	30
Notes: Numbers in parentheses were computed by subtracting the sum of all others establishment or employee categories by the total number in the establishment or employee category.				
Source: "Covered Employment and Wages in Virginia by 2-Digit SIC Code, March 31, 1988," Virginia Employment Commission.				

Wages

The average weekly wage per hour for a worker employed in New Kent County was \$7.52 in 1987. With the exception of Charles City County (\$6.95 per hour), wages were lower in New Kent County than any of the other surrounding jurisdictions in the region. Employees in the City of Richmond earned \$10.20 per hour, while Henrico and Hanover employees earned \$9.25 per hour and \$8.47 per hour respectively.

Employment Projections

Based on projections provided by the Virginia Employment Commission, total employment in the County is expected to increase by 70 percent by 2010. (Refer to Table 10.) The leading employers in New Kent County (government, retail trade and services) in 1980 will continue to offer the greatest number of employment opportunities. During the period of 1980-2010, employment in government and retail trade industries is expected to increase by more than 100 percent, while employment in the service industry will only increase by 26 percent.

TABLE 10

Nonagricultural Employment Projections for New Kent County: 1980-2010

Industry	Year				% Growth 1980-2010
	1980	1990	2000	2010	
Total	1,511	1,777	2,177	2,577	70
Mining	0	0	0	0	0
Contract Construction	126	138	155	173	37
Manufacturing	275	246	280	316	15
Transportation & Public Utilities	5	4	5	6	20
Wholesale Trade	55	50	54	59	7
Retail Trade	352	483	604	722	105
Finance, Insurance, and Real Estate	1	8	11	13	1,200
Services	330	298	358	418	26
Government	367	550	710	870	137
Source: Richmond Regional Planning District Commission staff and Virginia Employment Commission.					

Summary

The residents of New Kent County have similar economic characteristics to those people living in the region. Residents of the County are earning slightly higher incomes than people in the region. Statistics indicate that an overwhelming majority of County residents were working in service and manufacturing industries in areas outside the County. The local economic base only provided a small number of jobs for residents, but projections expect New Kent's economic base to expand in the next 20 years.

EXISTING LAND USE

A land use inventory is a recording of every activity that occurs on the land, whether it be a house, cropland, forest, industrial or commercial establishment. The inventory shows how many different types of activities are on the land and how far apart one activity is from another. This information is used as a basic tool and starting point to project what types of development activities and where development will occur in the future.

In the initial stages of the planning process, a land use inventory was conducted by the staff of Richmond Regional Planning District Commission for New Kent County. RRPDC staff traveled every road in the County and recorded every land use on United States Geological Survey (USGS) Topographic Quadrangle maps.

After completing the inventory, similar land use activities were grouped into categories and an existing land use map was prepared. The following is a description of these land uses and the development patterns of New Kent County.

Overview

Much of the land area in New Kent County is undeveloped. Historically, Eltham and Providence Forge developed as the residential and commercial centers in the County, while a few smaller communities or neighborhood centers developed at various intersections throughout the County. Current population growth is primarily concentrated in the western portion of the County near Bottoms Bridge and the southeastern corner of the County next to the Chickahominy River. Other development activity is scattered along primary and secondary roads throughout the County. Map 2 shows the existing land use pattern.

Forest/Open Space

Forest cover and open space accounts for approximately 84 percent (114,128 acres) of the County's total land area. Prime forest land, the areas having the most productive soils for forest growth, are found in the floodplain and along major and secondary drainage systems. All of the forest land in the County is commercial forest. Areas of open space are located throughout the County. Some of these open land areas show signs of timbering and past agricultural activities. Residences can be found scattered within these forest and open space areas.

Agriculture

Agricultural land in the County (12,428 acres) consists primarily of cropland and grazing land. Activities which are related to agriculture account for 9 percent of the total land area in the County.

Tracts of agricultural land are scattered throughout the County; yet, a few concentrations of agricultural land do exist. The most visible concentrations are located on the northern fringes of the County along the Pamunkey and York rivers and in the far eastern portion of the County near Holly Forks and Barhamsville. Some of the agricultural lands located in the northern portion of the County use the rivers to irrigate their crops. Smaller tracts of agricultural land are also found in the western portion of the County surrounding residential areas.

Using the U.S. Department of Agriculture definition of 'prime agricultural land', approximately 46,400 acres of prime agricultural land are found in New Kent County. Comparing the location of prime agricultural land with the existing tracts of agricultural land in the County shows that a great majority of the prime farmland is being used for agricultural purposes.

The County has also created agriculture/forest districts (AFDs) to preserve agricultural and forest land in the County. Many of the existing tracts of agricultural land and forest land are included in AFDs.

Single Family Residential

Residential land accounts for 5,760 acres, or 4 percent, of the land area in New Kent County. Residential development is concentrated in the western and southeastern portions of the County, but residences can also be found throughout the entire County. The two predominant types of development patterns are small residential clusters along County roads and residential subdivisions.

Clusters, groups of five to ten single family residences, are found dotted between forest and agricultural land as one travels down secondary roads in the County. Most of these homes are older and face the road, having direct driveway access to the highway. In some instances, additional homes are found after paved roads end and dirt roads begin. Larger residential clusters can be found near Windsor Shades and in Barhamsville.

Residential subdivisions are concentrated in the western and southeastern portions of the County. Residential developments located in western New Kent County, such as Five Lakes, have easy access to major roadways and Interstate 64. Subdivisions in the southeastern portion of the County, like The Colonies, have developed near the Chickahominy river emphasizing riverfront property. Most of the subdivisions in the County develop around rivers, lakes, or other water bodies which are used as recreational amenities and an additional water resource for the subdivision.

Most of the residential subdivisions have been recently developed and show signs of continued expansion. For example, many of these new developments are in the process of leveling ground for

new roads as well as clearing and staking of lots. These subdivisions are disconnected from each other and isolated from other types of development, using forest cover as a natural buffer. Many of the subdivisions have private, unpaved streets and only have one way access in and out of the development. Some of the subdivisions provide their own water systems, but all the units have individual septic tanks.

Mobile Home Parks

Eight trailer parks, consisting of 86 acres, are found in the County. Three parks are located in the Bottoms Bridge vicinity, two are located in the southeastern portion of the County along the Chickahominy River, one near Providence Forge and one each in Eltham and Lanexa.

Most of the parks are located off secondary roads on dirt roads. Building permit information indicates that no mobile homes have entered the County since 1986. There are very few mobile homes on individual lots in the County.

Commercial

Commercial development within the County occurs in two different land use patterns. There are a few clusters of commercial development found within the County. However, outside these clusters, several commercial uses can be found scattered throughout the County.

Commercial Centers. Three commercial centers are located in the County: Bottoms Bridge, Providence Forge, and Eltham. These communities have clusters of three or more commercial establishments.

1. Bottoms Bridge is located in the western portion of the County immediately adjacent to the Henrico County line. Commercial activities are located on both sides of the Interstate, along Route 60 and along Route 249. Total land area is 17 acres.

Bottoms Bridge provides commercial services to people traveling through the County along I-64 and Route 60 as well as residents in the County. Some of the commercial uses found in Bottoms Bridge are: gas stations, convenience stores, restaurants, video stores, drug stores and beauty shops. Banking, medical and postal services are also provided.

2. Providence Forge has a total of 77 acres and is the major commercial center for the County. The community is located at the intersection of Route 155 and Route 60. A great majority of the commercial uses are stripped along both sides of Route 60.

A variety of retail and service commercial establishments are found in Providence Forge. Most of these businesses are small in size. Retail goods, such as groceries, hardware, and auto parts, can be purchased in Providence Forge. An automobile dealer is located in the community. Service commercial businesses include restaurants, gas stations, convenience stores, and motels.

Other services, such as banking and medical facilities, are located in Providence Forge. A small office complex, Eastview Center, houses real estate agents, attorneys, and other businesses. The County library is located in the community. The area also has a post office and fire and rescue emergency services.

3. Eltham is located in the northeastern portion of the County next to the York River across from the Town of West Point. Eltham is predominantly a residential area, but has a small commercial center consisting of 16 acres. Commercial uses are found stripped along Route 33. Some of the uses found in Eltham are: gas stations, convenience stores, auto parts store, automobile dealer and body shop, boat dealer and service, and a motel. Most of the Eltham population commutes to West Point for other commercial goods and services.

Highway/Service Commercial. Individual commercial establishments, having a total land area of 33 acres, are found along major roads in the County. With the exception of a few businesses, the majority of these commercial uses are found on Route 249, Route 60, and Route 33. Also, these commercial establishments are usually located near residential communities, such as Quinton, Barhamsville, and Lanexa. These businesses are adjacent to the road and have direct driveway access to the highway. Some of the highway/service commercial uses in New Kent County are restaurants, automotive repair shops, barber/beauty shops, and motels.

Commercial Recreation

A total of 358 acres of land is used for commercial recreation in New Kent County. Commercial recreation uses are privately owned and operated recreational sites, and can include the sale of goods and services for recreational activities. Uses in this category consist of camps, campgrounds, marinas, and boat rentals.

The KOA Campground is located near Tunstall Station, while Ed Allen's Campgrounds and Cottages is located along the Chickahominy River. Ed Allen's is a significant commercial recreation use because of its large land area and the extra amenities, such as horseback riding, swimming and playground facilities, and a marina provided on the site. Two camps are found in New Kent County: Camp Kentwood located on Rte. 613 and Camp Makemie located on Rte. 621

next to Interstate 64. A public golf course is provided in the Five Lakes subdivision and boat rentals are available at the Diascund Reservoir. The three remaining commercial recreation uses are marinas situated along the Chickahominy River.

Industrial

New Kent County has a very small industrial base, consisting of approximately 20 operations and 112 acres of total land area. These operations are scattered throughout the County. Over one half of these industries are involved in the production of lumber or other wood products. Other industrial uses include salvage yards, welding operations, a paving company and a recycling corporation.

There are four sand and gravel operations existing in the County that have mining permits. Three of operations are located in Providence Forge and one operation is located in Eltham. Only the Eltham sand and gravel pit is still in operation, mining sand and gravel periodically. The remaining three operations are inactive.

Currently, the only concentration of industrial activity in the County is found in Providence Forge. A new industrial park has been established next to the New Kent Airport. The industrial park has a total land area of 8 acres and only has one occupant at the present time.

Public Services

Public Services are defined as those activities that are used by the general public and may be operated, owned, or related to a public agency. Uses in this category include: all government-owned property, recreational facilities, community facilities, institutions, and the County landfill. Uses in Public Services encompass a total land area of 144 acres.

The Virginia Department of Corrections has a correctional unit located in New Kent County on Route 634 near Angelview Church. The unit consists of a land area of approximately 40 acres and houses 100 inmates.

All of the public services are owned by a governmental agency or local organization except one, the Cumberland Children and Adolescent Hospital. The hospital is privately-owned and serves as a group home for children and teenagers who have serious illnesses and need constant care. The hospital is located north of New Kent on Route 637 next to the Pamunkey river.

A complete listing and description of the remaining public services and facilities can be found in the section, **Community Facilities**, on page 25.

Transportation/Utilities

This category consists of: primary and secondary highways, railroads, the New Kent Airport, the Virginia Department of Transportation maintenance headquarters, the C & P Telephone extension office, utility substations and the rest areas on I-64. These uses total 2521 acres approximately 2 percent of the County's land area. A detailed look at these uses can be found in the Transportation section, p. 21 and Community Facilities section, p. 25 of this plan.

Water-Dependent Uses

The shoreline areas of New Kent County are primarily undeveloped. However, good access to the rivers is provided. Overall, 10 boat ramps are located in the County: 3 along the Pamunkey river, 1 along the York, and 6 along the Chickahominy. Arrows point to the location of these boat ramps. Marinas which have boat ramps are shown on the map when the boat ramp arrow points to a commercial recreation use. (Refer to Map 2 - Existing Land Use).

TRANSPORTATION

The development of New Kent County has been greatly influenced by the transportation system. Early settlements in the County located along the Pamunkey and York rivers in Eltham to take advantage of the port that had been established across the river at West Point. In the early 1900's, Providence Forge developed as the commercial center of the County as a result of railroad lines, and later, Route 60 being routed through the area. Today, the presence of an interstate highway in the County is having a major influence on people choosing to live in rural New Kent County and commute to the metropolitan areas of Richmond, Hampton, and Williamsburg.

This section examines the current transportation network in the County. This network includes highway, water, rail and air transportation.

Highways

Highway rights-of-way occupy 2164 acres of land area in the County. Interstate 64 consumes 754 acres of land, while Route 60 absorbs another 368 acres. Other primary roads account for 354 acres of land, while 688 acres make up the County's secondary road network. The following description of County highways is based on the Virginia Department of Transportation (VDOT) functional classification of highways. (Refer to Map 3).

Interstates/Major Arterials. Interstates and major arterials serve long distance travel demands such as statewide and interstate travel. Interstate 64, which travels west-east through the State of Virginia, is routed through New Kent County. The interstate is a major expressway connecting the Tidewater area to Richmond and points west. Four interchanges are located in the County: Exit 49 at Rte. 249/33 (Bottoms Bridge), Exit 50 at Rte. 106 (Talleysville), Exit 51 at Rte. 155 (New Kent/Providence Forge), and Exit 52 at Rte. 33/30 (Eltham).

The presence of the interstate in the County yields many benefits. The interstate provides local residents with more efficient travel within the County and to surrounding localities. The interstate provides easy access into the County which helps increase the economic development potential of New Kent. There are no major arterials located in the County.

Minor Arterials. Minor arterials provide the principal means of access between the County and other jurisdictions. These routes also carry traffic between local destinations in the County. The following routes are classified as minor arterials.

1. Route 106, starting at the Charles City County line and ending at Interstate 64, is classified as a minor arterial. The road is located in the southwestern portion of the County, and serves local traffic as well as regional traffic between Hopewell and I-64.

2. Route 33 serves as the major corridor to the community of Eltham and the Town of West Point. The road runs northeast from I-64 to the Town of West Point. Route 33 is a four lane highway, and, in the opinion of VDOT officials, has the capacity to handle industrial or other intensive uses along its corridor.

Major Collectors. The primary function of major collectors is to carry local traffic between arterial and residential neighborhood streets. These roads carry local traffic within the interior of the County and provide a link to nearby towns and cities. Major collectors are:

1. Route 60 is the west-east corridor located in southern New Kent County which runs parallel to the interstate for the entire length of the County. Route 60 provides local residents with access to the interstate, local communities, such as Bottoms Bridge and Providence Forge, as well as the Cities of Richmond and Williamsburg;

2. Route 249, running west-east, is the main road in the County north of the interstate. Route 249 begins in the western portion of the County north of the interstate and dead ends into Route 33. Between these two points, the road links the local communities of Bottoms Bridge, Quinton, Talleyville, Carys Corner, New Kent (the County seat), Slatersville, and Angelview Church;

3. Route 106 becomes a major collector north of the interstate and continues to the intersection of Route 609 and Route 606. This section of Route 106 passes through the community of Talleyville;

4. Route 606 carries local traffic from the intersection of Route 609 and Route 606 to the Hanover County line. This is the only major collector in the northwestern section of New Kent County;

5. Route 155 extends north from the Charles City County line to its intersection with Rte. 249 at Carys Corner. Route 155 is the main north-south route through the County that has direct access to Providence Forge, the commercial center of the County. Charles City County residents also travel 155 to get to Providence Forge and Route 60;

6. Route 618, from the Charles City County line to Route 60, serves both New Kent and Charles City residents who desire to travel the Route 60 corridor. The road is located in the southwestern portion of the County near the Chickahominy river;

7. Route 30 begins at the intersection of Route 33 and Route 249 at Angelview Church and heads south toward the community of Barhamsville and the James City County line;

8. Route 273 carries local traffic from Eltham into the southeastern portion of New Kent County. Route 273 dead ends into Route 30 just north of the community of Barhamsville.

Minor Collectors. There are no roads classified as minor collectors in New Kent County.

Planned Throughfare Improvements

Information concerning proposed highway improvements was obtained from the VDOT Six Year Improvement Program and a draft of the 1989 Statewide Highway Plan, also produced by VDOT. The Six Year Improvement Program indicates highway construction or improvements along with each project's funding allocations that

have been approved for the next six years, while the 1989 Statewide Highway Plan only makes recommendations for highway construction or improvements, projecting to the year 2010.

The Six Year Improvement Program lists several improvements to existing secondary roads, railroad crossings and bridges in the County. Highway improvements consist of widening, resurfacing, and realigning roads. Safety features, such as lighting and guard rails, are being added to existing railroad crossings and bridges.

There are two significant highway projects that will be ongoing throughout the entire six year period. Route 627, running north from Lanexa to Route 603, is being paved and will provide a more accessible route for residents who wish to travel from the southeastern portion of the County to the New Kent Courthouse area. Also, Route 106, from the Benjamin Harrison Bridge to Talleyville, is being upgraded to handle a greater degree of industrial traffic, such as transfer trucks and other heavy loads.

The 1989 Statewide Highway Plan also makes recommendations for improvements to various bridges, railroad crossings, and highways in the County. Highways proposed to undergo improvement are: Interstate 64, Route 60 (from the New Kent County line to Route 106), Route 106 (from the Benjamin Harrison Bridge to Talleyville), Route 606 (from the intersection of Route 606 and Route 609 to Tunstall Station), and Route 273 (from Eltham south to Barhamsville).

Each year VDOT allocates a fund for the upgrading of existing dirt and gravel roads. Specific road improvements are not earmarked and localities must compete for a share of the fund. VDOT requires that the dirt or gravel road be traveled by a minimum number of 50 vehicles per day before the County is eligible to receive funding. The County Board of Supervisors then select which roads will be upgraded and improved.

Many of the unpaved gravel roads in New Kent County serve residential neighborhoods. These roads are usually built and funded by the private developer. In these cases, the developer is responsible for road improvements, but usually enters into an contracts the County to maintain these roads. VDOT allows private roads to enter onto State-maintained roads as long as the dirt or gravel roads are constructed to State specifications.

Other Transportation Elements

Water. Historically, water transportation has played a very significant role in the development of New Kent County. Today, water transportation plays a less significant part in the development of the County. The rivers are now mainly used for outdoor recreation purposes.

Rail. Two railroad lines, consisting of 25 miles of rail, are found in New Kent County. The Chesapeake and Ohio Railroad (CSX) is located in the southern portion of the County and runs parallel with Route 60 and the Chickahominy River. The Southern railroad is located in the western section of the County and cuts across the northwestern portion of the County.

Air. Commercial air service is available at Richmond International Airport, located approximately eight miles west of the County. Commercial air carrier passenger service is provided by several air lines. Nationwide and worldwide connections are available through daily scheduled flights. Commuter service is also available. The airport also offers air freight and express service and maintenance facilities for many types of aircraft.

The New Kent Airport is located in the western portion of the County next to the Five Lakes subdivision off of Route 612. The airport is a general aviation airport facility with a 3,200 feet paved runway. Fuel and major and minor repair facilities are available. The field is attended during the day and can be lighted at night upon instrument activation.

COMMUNITY FACILITIES / UTILITIES

The following section provides a brief description of the community facilities found within the County. This section will also include general information about utilities and public services in the County. Together, these provide necessary services to County residents. (Refer to Map 4).

County Offices

A majority of the County departments are housed in the New Kent Courthouse building. The Courthouse is the center of government activity in the County. New Kent Courthouse is located on Route 249 approximately 2 miles east from the intersection of Route 155 and Route 249.

County Library

The Heritage Library, located in Providence Forge on Route 155, serves New Kent as well as Charles City County residents. The library currently holds around 40,000 volumes and receives approximately 1,000 to 1,200 new volumes per year.

County Animal Shelter

The New Kent Animal Shelter is located approximately 3.5 miles west of Providence Forge on Route 60.

Courts

Circuit Court is housed at the New Kent Courthouse. General District Court and Juvenile Court are both located on Route 155 in Providence Forge.

Emergency Services

Emergency services are provided to County residents at various locations throughout the County. All of the emergency services are coordinated through the sheriff's dispatcher office.

The sheriff's department is located at New Kent Courthouse. Protection includes 1 sheriff, 10 deputies, and 2 auxiliary deputies.

Fire protection is provided through 3 volunteer fire companies, totaling 60 members, and a fire marshall. Fire stations are located in Providence Forge on Route 60, in Quinton on Route 249, and in Eltham on Route 33. The company in Eltham will be moving to a new fire station by August, 1990. The new station will be located 3 miles west on Route 33 near Angelview Church.

A 25 member volunteer company makes up the rescue squad which serves New Kent County as well as Charles City County residents. The station housing the rescue services is located on Route 629 east of Providence Forge.

Mail Service

There are four post offices in the County. These are located in Bottoms Bridge, Providence Forge, Lanexa, and Barhamsville. Residents in Eltham are served by the post office in West Point.

Recreational Facilities

New Kent County owns a very limited number of recreational facilities. The recreational facilities at local schools are shared with County residents. The Chesapeake Corporation manages a nature trail on Route 33 near Angelview Church. The trail is open to the general public.

Three community buildings are located in the County. The Quinton Community Center is located on Route 249, the Cumberland Community Center is located near the intersection of Route 249 and Route 623, and the Providence Forge Recreation Association is located on Route 629 outside of Providence Forge. All of these buildings are open for use by the general public and local organizations.

Schools

The construction of an additional school facility has prompted a reprogramming of the educational system and relocation of schools in the County. This description of the school system reflects these changes.

The educational program for New Kent County is divided into four units: New Kent Primary School (Kindergarten - 2nd grade), New Kent Elementary School (3rd grade - 5th grade), New Kent Middle School (6th grade - 8th grade), and New Kent High School (9th grade - 12th grade).

The primary school is located on Route 249 near the New Kent Courthouse. New Kent Elementary School is located at the intersection of Route 249 and Route 630 between Quinton and Talleyville. New Kent Middle School is housed in the old high school building next to the New Kent Courthouse, while the high school recently moved to its new facility located at the intersection of Route 249 and Route 605.

Solid Waste Disposal

The New Kent County Landfill is located on Route 618 between Talleyville and Providence Forge. The landfill was closed in July, 1985; yet, it serves as the main collection site in the County. The County has contracted with BFI, Inc. for solid waste disposal services. Eleven greenbox containers are located throughout the County for garbage collection. Trash from these containers is hauled to Henrico County for disposal.

Transportation and Utilities

A variety of transportation services and utilities are available to County residents and the general public. Most of these facilities and services are publicly owned.

Transportation. The Virginia Department of Transportation has two maintenance headquarters in the County. The New Kent headquarters is located on Route 604 near Criss Cross. The Slatersville headquarters is located on Route 632 near Route 33.

Rest areas are located on Interstate 64 approximately 2 miles from the Providence Forge/New Kent interchange, one rest area serves eastbound traffic and one rest area serves westbound traffic. Restroom facilities and picnic areas are provided at the site.

Utilities. County residents are served by a variety of public and privately owned utilities. Utilities include water, sewer, pumping stations, electricity, telephone, gas and oil.

1. Central water and sewer service is unavailable to County residents. All housing units have individual septic tanks. The County does, however, maintain water systems which were dedicated by private developers of some of the subdivisions in the County. Subdivisions which are served by County-maintained water systems are Sherwood Estates, Kenwood Farms, Greenwood Estates, White House Farms, Five Lakes (East, Woodland, and North), and The Colonies. The County provides public water for a total of 4800 customers in these areas. Four subdivisions have private water systems: Woodhaven, Brookwood Manor, Wedgewood, and Five Lakes Brianwood.

2. Pumping stations are located along the Chickahominy river and at the Diascund reservoir. Both the river and the reservoir furnish water resources for the County's water supply.

3. Electricity is supplied by Virginia Power Company. The Company operates a substation on Route 649 near Lanexa.

4. Telephone service is provided to County residents by the Chesapeake and Potomac Telephone Company. A business office is located at the intersection of Route 249 and Route 612.

5. Gas and Oil is available to local residents from local and regional distributors. A gas and oil company is located in Providence Forge.

HISTORICAL AND ARCHAEOLOGICAL RESOURCES

Historical and archaeological resources are valuable treasures of the past. These resources represent the heritage of an area as well as provide data on past and current development patterns. For these reasons, the County should consider historical and archaeological resources as a significant element of the planning process and assist in the preservation of these resources.

New Kent County has a number of historical and archaeological resources dating back as far as prehistoric man. Native Americans and European colonists have also left their mark on the County. The following is only a cursory report of these resources.

Historic Sites and Structures

The Virginia Division of Historic Resources has recorded 122 sites and structures in the County, dating back to the mid 17th century. These sites and structures are believed to have some historical significance. Seven of the 122 sites are listed in the National Register of Historic Places. (Refer to Map 5). These landmarks are considered important to State history.

Cedar Grove was built in the late 18th century and is an architectural example of the Richmond town house of the period. Letitia Christian, the first wife of President John Tyler, was born at Cedar Grove.

Criss Cross and Foster's Castle are very distinct being 2 of Virginia's only 3 remaining Stuart manor houses.

Hampstead is one of the few remaining plantation houses in the County. Most of the plantation houses in New Kent County were burned during the Civil War. It was built near the Pamunkey river in 1825 for planter Conrade Webb.

Moysonec is an archaeological site and will be discussed in the following section.

Olivet Presbyterian Church is an example of Greek revival architecture. Presbyterians came to the County in the mid 18th century and erected the church in 1857.

St. Peter's Church displays the Baroque style of architecture which is rarely found in the State. The church is also well-known because the marriage of George Washington and Martha Dandridge Custis took place in the church or the vicinity of St. Peter's.

The New Kent Courthouse and the buildings immediately surrounding have been proposed as an historic district. This area is significant architecturally as well as being a prime example of a colonial village. Once the Courthouse area is designated as an historic district, the locality will have the legal means to protect the historic resources in the district. Some examples of preservation measures include protecting buildings within the area from demolition, prohibiting new construction in the area, establishing design standards, or requiring new developments to obtain approval by an architectural review board or other governing body before construction.

To achieve landmark designation, each property must be thoroughly researched and go through an administrative review process. As a result, it is very likely that many of the recorded sites in the County are eligible for landmark designation but have not been proposed because of the great amount of time and labor needed to research just one property. Two recent developments that should assist the study of historic resources in the County are the appointment of an Historic Commission and the formation of the Historical Society in New Kent County and a commitment by the Department of Historic Resources to conduct an County-wide architectural survey in the fall of 1989.

Archaeological Findings

New Kent County contains a number of archaeological sites which date as far back as the beginnings of man and include early

American settlement. Presently, 167 archaeological sites have been discovered in New Kent. Most of these archaeological sites lie along the Chickahominy and Pamunkey rivers and waterways extending into the interior of the County. Many sites have also been found in the eastern portion of the County near Barhamsville and Holly Forks as a result of the archaeological digs conducted by the College of William and Mary. Map 5 provides a general overview of archaeological findings in the County.

The earliest archaeological sites in the County reveal evidence of Native American occupancy of the County as early as the Archaic period, or 7000-6000 B.C. Several of the Indian villages were located along the Pamunkey and Chickahominy rivers. One such village, Moysonec, was discovered by Captain John Smith and his crew in 1607. Moysonec is listed on the National Register of Historic Places.

Many Europeans established settlements in the same areas of New Kent County as the Native Americans. The evidence of forts in the County indicates the colonists' attempt to protect themselves from Indian attack. Fort James, 1 of the 4 fort sites located in the County, was managed by the biggest landowner in the County, Thomas Rolfe, son of Pochantas. This site is very significant because it has remained virtually undisturbed, providing a valuable opportunity to study early European settlement.

There are a range of other archaeological sites found in the County. The site of Brick House, the earliest port town along the Pamunkey, provides valuable information concerning the domestic, commercial, and governmental aspects of early European settlement. The Plantation Era in New Kent County is studied more from an archaeologist's perspective than an architecture historian's perspective, because almost all of the great plantation houses were burned to the ground during the Civil War. Many military sites, consisting of encampments and battlegrounds, are also located in New Kent County especially along the Pamunkey river which was occupied by the Federal army during the Civil War.

Archaeologists consider New Kent County to be 'poorly known', estimating that the 167 archaeological sites represent one tenth of 1 percent of the sites that probably exist in the County. The time and labor necessary to survey one archaeological site limits the ability for a County-wide survey to be conducted. Therefore, archaeologists suggest that an archaeological survey be required before development of a particular tract of land begins.

Summary

The historical and archaeological resources in New Kent County provide important data concerning the development of early man, settlements of Native Americans, the entry of the English into the New World, and the colonial and plantation periods. Efforts should be made to incorporate the protection of historical and

archaeological resources in the economic development philosophy of the local government.

Map 1
LOCATION MAP
NEW KENT COUNTY, VIRGINIA

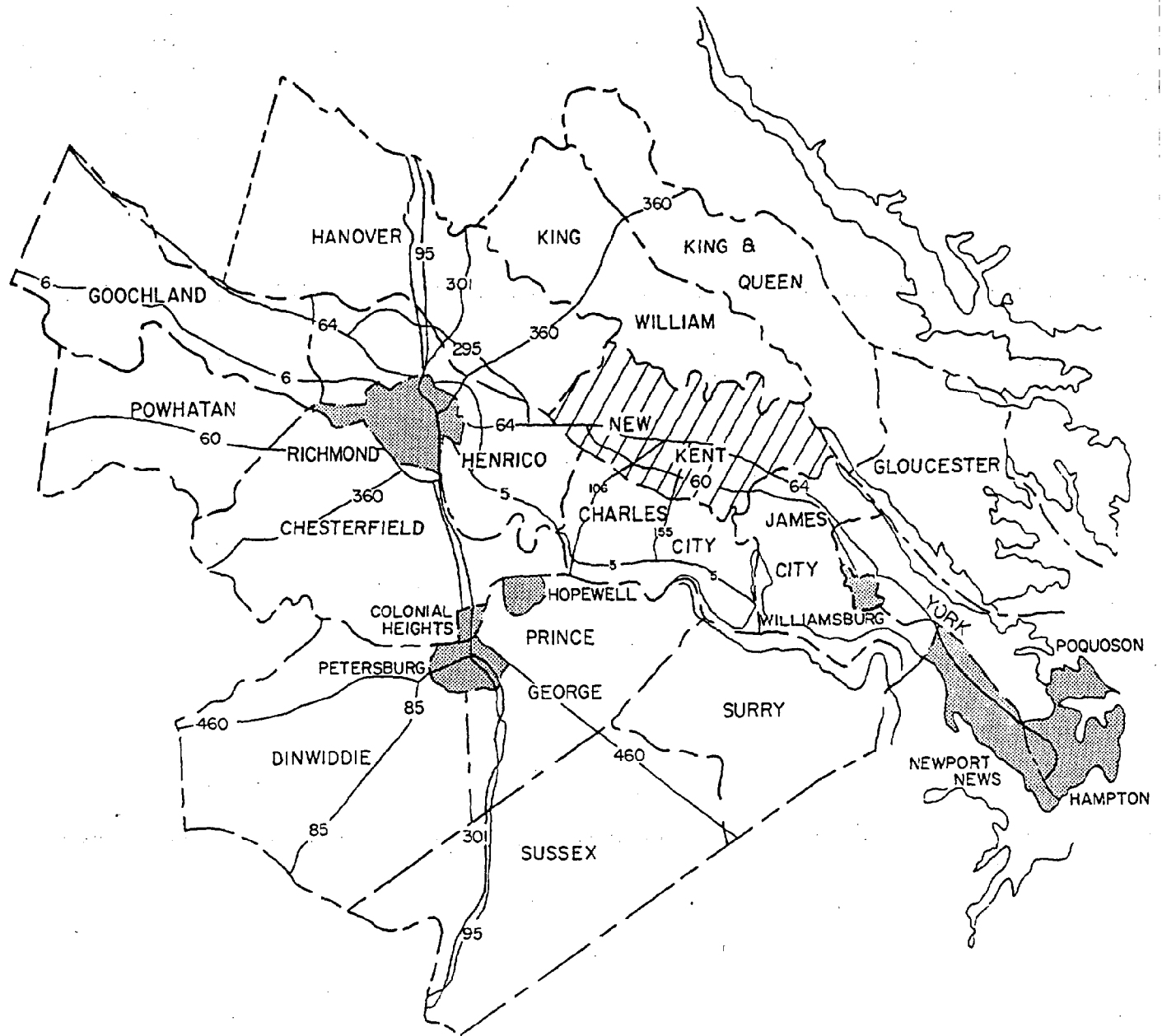
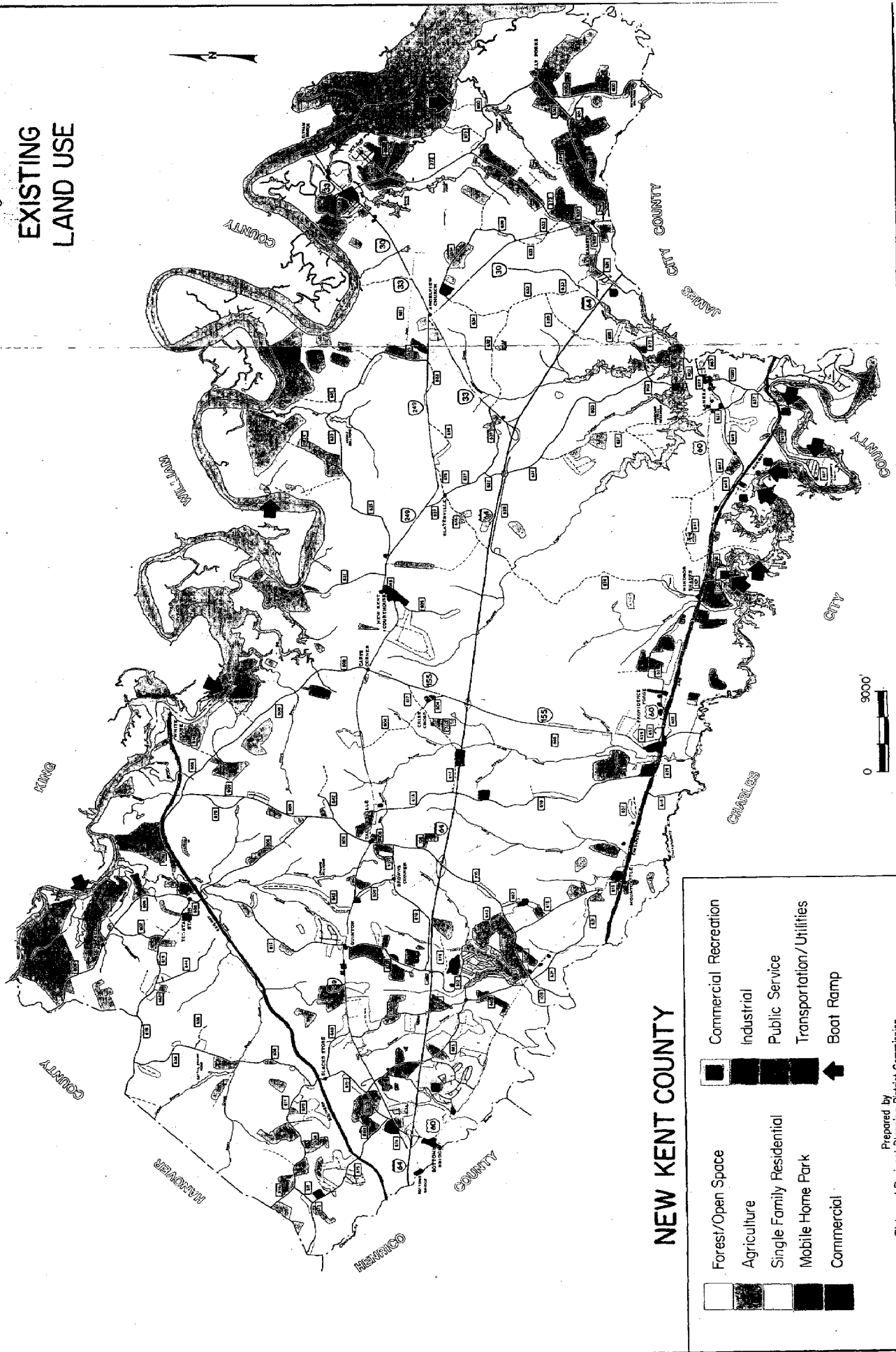
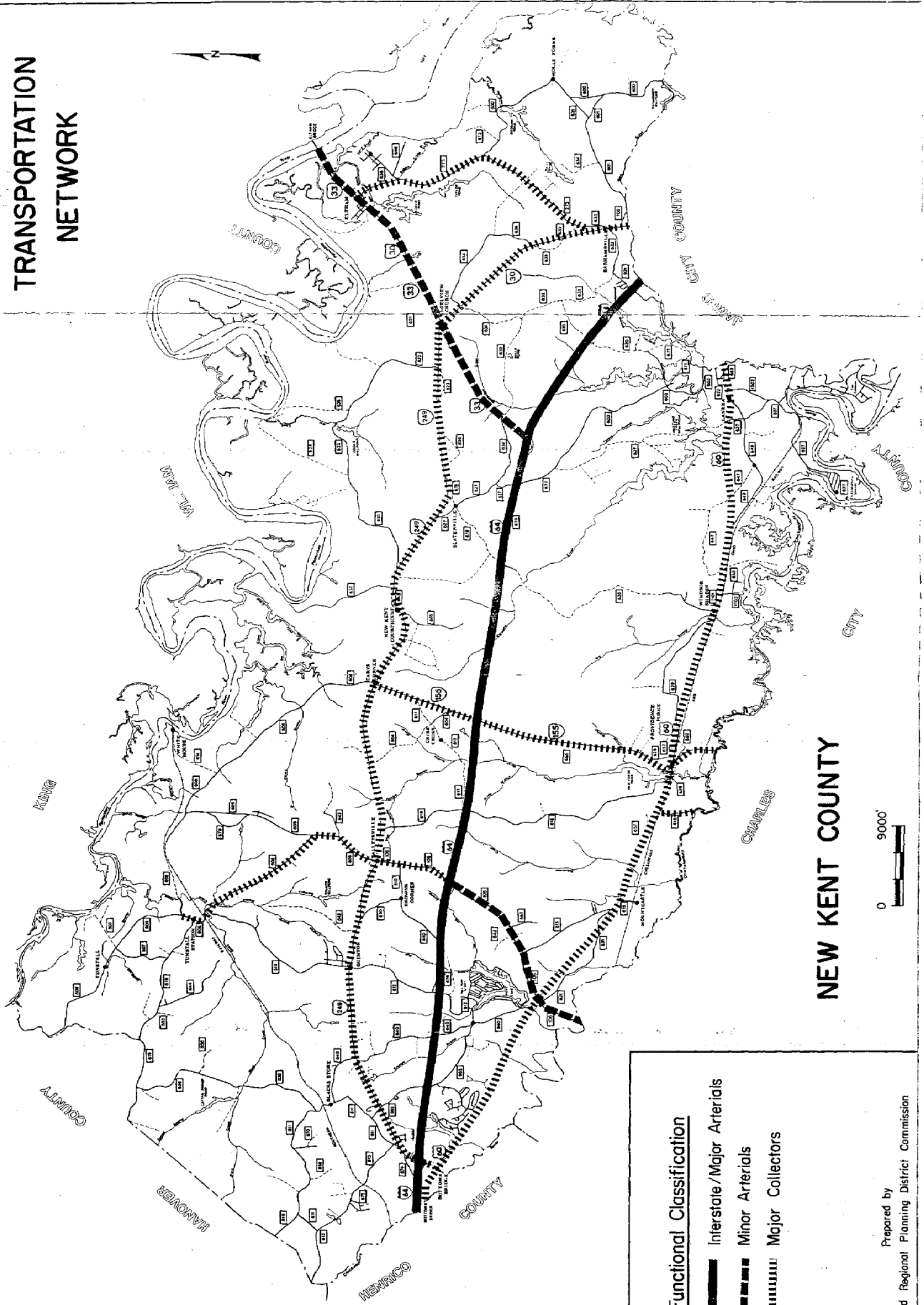


Figure 2

EXISTING LAND USE



TRANSPORTATION NETWORK

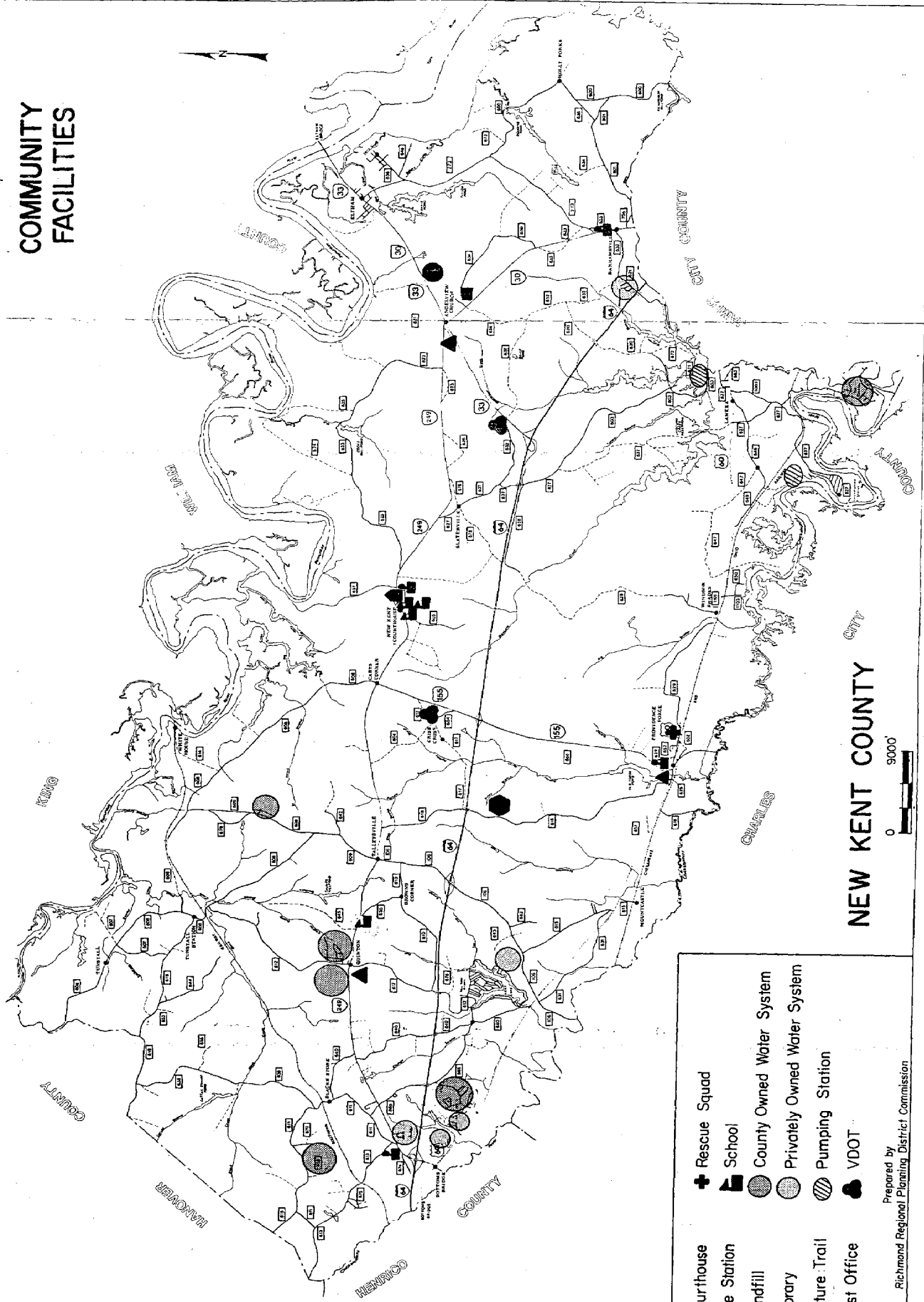


Functional Classification

- Interstate / Major Arterials
- Minor Arterials
- Major Collectors

Prepared by
Richmond Regional Planning District Commission

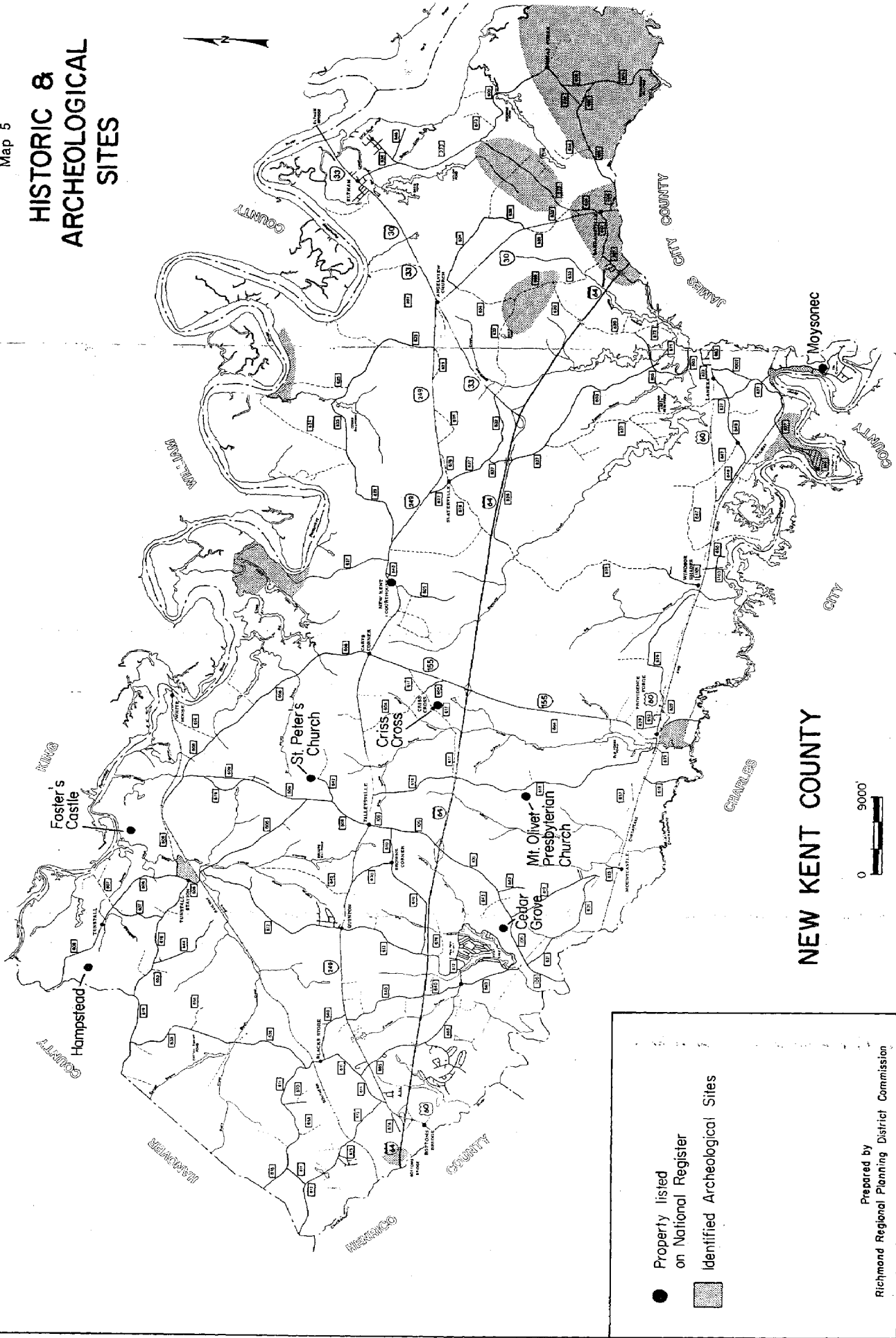
COMMUNITY FACILITIES



NEW KENT COUNTY

Prepared by
Richmond Regional Planning District Commission

HISTORIC & ARCHEOLOGICAL SITES



- Property listed on National Register
- Identified Archeological Sites

Prepared by
Richmond Regional Planning District Commission

NATURAL RESOURCES INVENTORY

Natural resources strongly influence where and how land can be developed. It is important to identify and understand these resources for the benefit of the resource, future development and the quality of life in the County.

Natural resources can greatly enhance the quality of development. They provide visual beauty as well as a comfortable environment in which people can live. For example, trees moderate temperatures by blocking out sunshine on hot summer days and slow the rush of cold winter winds. Plants replenish the air with oxygen. Hills and berms can serve to filter out unwanted sights and sounds.

Conversely, some natural resources can be viewed as barriers to development. Steep slopes, floodplains and wetlands can prohibit or make development difficult. In trying to overcome these barriers, natural resources are sometimes destroyed or degraded. Inevitable, however, the home built in the floodplain or the septic tank constructed in poor soil will pay the price for not designing with natural resources in mind.

This section examines natural resources in New Kent County. These resources include topography, slope, hydrology, wetlands, flood plains, soils, forests, prime agricultural land, and rare and endangered species.

TOPOGRAPHY

Topography delineates the size, elevation, location and shape of mountains, valleys, bluffs, lakes, rivers, and streams, of an area. The topography of an area is important in that it affects the aesthetic qualities of the area, plant and animal habitat, climate, and the type and location of man's development activities.

New Kent County is located in the south-central portion of the Commonwealth. It is bounded to the north by King William County, the east by James City County, the south by Charles City County, and to the west by Henrico and Hanover Counties. The County has 212 square miles of land area and 9 square miles of surface water. The County lies entirely in the coastal plain physiographic region, a region that runs north-south along the eastern seaboard of Virginia.

In general, New Kent County has a gently rising and falling topography. Fairly extensive flat, low lying areas are found along the Pamunkey River to the north, with less extensive areas found along the Chickahominy River to the south. Overall, elevations in the County average between 50 and 100 feet above sea level. The

highest elevations are around 170 feet. The lowest elevations are at sea level and are found along the two major rivers.

SLOPE

Slope is defined as "the rise over the run". Slope is a measure of the change in vertical distance (height) over a horizontal distance (length) expressed as a percentage. For example, a change of 5 feet over a distance of 100 feet equals a slope of 5 percent.

It is generally acknowledged that a slope of 15% or greater presents a constraint to many types of development. Steep slopes (greater than 15%) are difficult to build on, place damaging stress on buildings, are easily erodible, and, when disturbed, contribute to sedimentation and pollution of streams.

The majority of the County has slopes of 15% and less. Map 6 shows that slopes greater than 15% are concentrated along tributaries of the Pamunkey and York rivers such as Black Creek, Mill Creek, Richards Swamp/Goddins Pond, and Ware Creek. To a lesser extent, 15% or greater slopes can be found along the Chickahominy and its tributaries.

HYDROLOGY

Hydrology is the distribution and circulation of water in the air, on the earth's surface, and underground. Rivers, streams, wetlands, floodplains, and groundwater aquifers are part of the hydrologic system. Understanding the hydrology of an area is useful in determining the quality and quantity of water available for human consumption, waste treatment, and irrigation.

Surface Water

The many rivers and streams within and adjoining New Kent County play a significant roll in the development of the County. As shown on map 7, the County lies within three major river basins, the York in the northeast, the Pamunkey in the north, and the Chickahominy in the south. The York is formed by the Pamunkey and Mattaponi Rivers at their confluence near Eltham. Approximately one-third of the County lies in the Pamunkey basin, slightly under two-thirds in the Chickahominy basin, and the smallest portion located in the York basin. There are many significant smaller streams that are tributaries to the these rivers. The locations and general characteristics of these streams will affect the uses they can support, and how they can be developed.

The York River is the largest river (based on flow) adjoining New Kent although its basin makes-up the smallest part of the

County. The York adjoins the County at its northeast corner from approximately Eltham to the James City County line at Ware Creek. Within that part of the York basin found in New Kent, land use is primarily agricultural. Agricultural activities can impact water quality by contributing to nonpoint source pollution (i.e. soil erosion, and fertilizer and pesticide runoff).

The York River is an estuary in New Kent County, that is, it is influenced by the ebb and flow of lunar tide cycles. Fresh water flowing down from the upper basin mixes with saline (salty) waters moving up from the Chesapeake Bay. The York, adjacent to the New Kent shoreline, is classified as a transition zone by the Virginia Water Control Board (VWCB). Within this zone salinity is low and highly variable. The salinity of the York as it passes through this zone can vary from season to season and year to year depending on upriver freshwater inflow.

The Pamunkey River defines the County's northern boundary. The Pamunkey is the second largest river (based on flow) adjoining the County. The entire Pamunkey drainage basin is 1,477 square miles. Based on U S Geological Survey (USGS) data from its gage station in Hanover County, the average flow of the Pamunkey in New Kent is 1,368 cubic feet per second (cfs) or 884 million gallons per day (mgd).

Land uses in the Pamunkey River basin both within and outside New Kent can be described as rural/agricultural in nature. Water quality is impacted by nonpoint pollution from agricultural sources. In addition, irrigation within the basin is believed to worsen low flow conditions of the river during periods of drought.

The Pamunkey is an estuary in New Kent County. The VWCB has classified the Pamunkey from Eltham to Lee Marsh as a transition zone. Like the York, the salinity in this zone can vary from season to season, year to year. From White House upstream past the County's western boundary the river is classified as tidal freshwater. In this reach salinity is negligible.

The Chickahominy River, the County's third largest based on flow, forms the County's southern boundary. Data from the USGS gaging station south of Providence Forge shows the average discharge of the Chickahominy there to be 262 cfs, or 169 mgd.

The Chickahominy's drainage basin at that point is 248 square miles. The majority of the land uses within the basin are rural/agricultural in nature. Urban uses are found along the river in proximity to the Richmond metropolitan area. Development in the area is spreading and will have an impact on the river's water quality.

Part of the Chickahominy River in New Kent County is tidal, and part non-tidal (not influenced by lunar tides). Walkers Dam,

located 22 miles upstream from the mouth of the river, is a barrier to the further movement of tidal currents. That part of the river downstream from the dam is tidal, and that above, nontidal. The tidal portion of the river is classified as a transition zone where salinity is low and highly variable. The nontidal portion is classified as a freshwater system.

Surface Water Users

Drinking Water

The City of Newport News utilizes the water impounded by Walkers Dam as a raw water supply. For this reason the watershed above Walkers Dam requires protection from development activities that would adversely affect water quality. To help achieve this protection, the Virginia Water Control Board has designated the Chickahominy from Walkers Dam to a point five miles upstream as a "public water supply". As such, the water within the river must meet certain stringent water quality standards. In addition, the VWCB requires that all facilities that discharge wastewater to the Chickahominy River meet special effluent standards.

The City of Newport News also owns and operates Diascund Reservoir. This impoundment, located in the southeastern portion of the County, is fed by Diascund Creek, Timber Swamp, Beaverdam Creek, and Wahrani Swamp. This watershed has been designated as a "public water supply" by VWCB. Surface water within this watershed must meet stringent water quality standards.

The Chickahominy River, because it is being used as a water supply source for Newport News, and because of stringent water quality standards promulgated by VWCB, will not cost effectively provide significant amount of additional drinking water for a large user or users. Currently, the Pamunkey is considered to have significant amounts of drinking water available. Upriver from New Kent, Hanover County is preceding with the permitting process that may someday allow it to withdraw water from the Pamunkey during periods of high flow. Water withdrawn will be used to fill the proposed Crump Creek reservoir. Newport News is also looking at the Pamunkey as a source of water to meet their future needs.

Wastewater

The Pamunkey and Chickahominy Rivers have relatively few wastewater dischargers either within or outside the County. Threats to water quality appear chiefly in the form of land disturbing activities that produce pollution from runoff on the land.

There are two facilities that discharge treated wastewater within the County. Cumberland Hospital operates a sewage treatment plant with a design capacity of 30,000 gallons per day. At this

time the plant discharges an average of 6,000 gallons per day. Effluent from this plant enters the Pamunkey River. The Department of Corrections operates Field Unit 16 near Angelview Church. The design capacity of this plant is 12,000 gallons per day. The average discharge of the plant is 10,000 gallons per day. This plant discharges to Wahrani Swamp which is part of the Diascund Reservoir watershed.

Ground Water

New Kent County is underlain by a geology made up of sand and gravel. A cross section of the hydrogeology reveals an unconfined surface aquifer with a water table at or close to the soil surface. The surface aquifer is underlain by seven confined aquifers, that is, aquifers separated from each other by an impermeable layer such as clay. These aquifers are underlain by hard rock known as "basement". Water for human consumption and other uses in the County is withdrawn from these aquifers.

The nature and extent of ground water in the County is less well known than for surface water. This information gap has narrowed recently with the publication of Ground-Water Resources of the York-James Peninsula of Virginia by the United States Geological Survey. This study of the ground water of the York-James peninsula includes New Kent County. The report is a good source of information on ground water of the peninsula.

The executive summary of the report reveals significant findings.

"[W]ithdrawal of ground water has caused a lowering of water levels throughout the multiaquifer system and has created cones of depression centered at and expanding outward from areas of concentrated ground-water use."

"Withdrawal is expected to increase, further lowering water levels[,]...result[ing] in interference among ground-water users and the possible movement of salty water into freshwater parts of aquifers."

"The availability of ground water for meeting future water needs has become a matter of local and regional concern."

One cone of depression that is significant to New Kent County originates from groundwater withdrawals by Chesapeake Corporation across the Pamunkey River in the Town of West Point. This cone extends well into the County and could cause interference with wells located here.

Unofficial estimates by USGS indicate that the County could conceivably withdraw up to 6 million gallons of groundwater per

day. This could be accomplished by drilling six wells to a depth of one-thousand feet at various points in the County. Barring any major new water user outside the County, this would provide enough potable water to meet the County's needs well beyond the year 2030.

WETLANDS

Wetlands are low-lying areas with water saturated soil. The source of water may come from rainfall, groundwater, or ocean tides. Marshes, swamps, and mud flats are obvious examples of wetlands, although there are other types that are not as readily discernable.

Wetlands are defined, by the various agencies that regulate them, using a three parameter approach. To be a wetland an area must have, (1) hydric soils, (2) hydrophytic vegetation, and (3) a hydrology typical of a wetlands system. Hydric soils are soils with characteristics that are produced under water saturated conditions, hydrophytic vegetation is vegetation adapted to living in water saturated conditions, and a typical wetlands hydrology is where water saturates the soil at a frequency and duration that supports hydrophytic vegetation and produces hydric soils.

Wetlands perform several important functions. Wetlands improve water quality by slowing the flow of water and allowing excess suspended solids, nutrients, and toxic substances to settle out of the water column. Some of these pollutants are taken up and used by wetland plants, while the rest are broken down by bacteria into less harmful substances. Wetlands act as natural buffers against flood waters by slowing the velocity of the flow, absorbing excess volume, and releasing flood waters at a slow rate. Wetlands prevent erosion by binding together soil through their extensive root systems. This prevents the loss of valuable uplands such as agricultural and forestal land. Wetlands contribute to the flow of rivers and streams by serving as discharge points for groundwater. This helps to maintain streamflow during drought conditions. In some cases they act as recharge areas for groundwater. Wetlands produce great amounts of food which feed small organisms, which in turn are fed upon by larger organisms, and so on. Eventually man feeds on organism, such as fish, fowl, and meat, produced by this 'chain'. Wetlands serve as habitat for many important commercial and recreational birds, fish, and mammals. They provide food, nesting areas, shelter, and protection.

New Kent County has extensive areas of both tidal and nontidal wetlands as seen on map 8. Tidal wetlands are influenced by the ebb and flow of lunar tides. These wetlands are found along the Pamunkey River and it's tidal tributaries, and the tidal portion of the Chickahominy River and it's tidal tributaries. Nontidal wetlands are usually low lying areas, with a high water table that

saturates the soil surface. Nontidal wetlands are isolated from tidal influences. Nontidal wetlands are found along nontidal portions of streams tributary to the Pamunkey River, and along nontidal tributaries of the Chickahominy River and that portion upriver from Walkers Dam.

FLOOD PLAINS

A flood plain is level land lying adjacent to a river or stream that may become submerged by floodwaters. Floodplains are formed by silt and sediment deposited by a stream. The 100 year flood plain is that area of land that would be inundated by a flood that statistically occurs once in 100 years. In other words, land lying within the 100 year flood plain would have a 1% chance of being flooded in a years period of time.

The United States Department of Housing and Urban Development, Federal Emergency Management Agency, has developed flood plain maps under authority of the National Flood Insurance Act. These maps define those areas that are eligible for inclusion under the National Flood Insurance Program. They have been used in this survey to define those areas in New Kent County that fall in the 100 year flood plain. There are two sections of the County that have not been mapped by FEMA. One section covers the Diascund Reservoir area, and the other, adjacent section, covers the area west of there.

The FEMA maps have not been field checked, and may contain inaccuracies that can only be corrected through field inspection. The flood plain map indicates, generally, where the 100 year flood plain is located. The map indicates where caution should be exercised when deciding where to locate development.

Flood plains as mapped in New Kent County are primarily located along the York, Pamunkey, and Chickahominy Rivers. The flood plain extends a considerable distance into the County along Black Creek. Map 7 shows flood plain areas in New Kent County.

SOILS

Development activities are affected to a large extent by soils. Building construction, roads, bridges, septic systems, agriculture and forestry, need to occur in or on the right soil types to ensure their success. Understanding the types of soils in New Kent County is necessary to meet the County's goals for future development.

The United States Department of Agriculture Soil Conservation Service in cooperation with Virginia Polytechnic Institute and State University has recently completed a soil survey of New Kent

County. This survey will be published for distribution in the near future. Information in this section was obtained from the Soil Conservation Service and represents the most current data available.

The soil survey contains a large amount of valuable information that will be useful in the County's planning process. The survey contains maps that delineate all of the soil types within the County, as well as information on each soil such as; yields per acre of crops and pasture, woodland management and productivity, recreational development, wildlife habitat, building site development, sanitary facilities, construction materials, water management, engineering properties and classifications, physical and chemical properties of the soils, soil and water features, and other information.

One issue of particular importance to New Kent County, that is directly related to soils, involves the soil suitability for on-site sewage treatment.

Map 9 shows soil suitability for on-site sewage treatment. This information was produced in cooperation with representatives of the U. S. Soil Conservation Service (SCS), Virginia Department of Health, New Kent County, Virginia Polytechnic Institute and State University, and Richmond Regional Planning District Commission. This is a generalized map, and does not substitute for a site specific analysis of soils.

This map shows that:

- (1) sixty-five percent (87,275 acres) of the County contains soils that are unsuitable for any type of on-site sewage treatment system; and that,
- (2) thirty-five percent of the County (48,039 acres) contains soils that are suitable for some type of on-site sewage treatment system.

Of the soils that are suitable, eighty-one percent (39,134 acres) have severe limitations for on site systems, and nineteen percent (8,905 acres) have moderate to slight limitations.

Soils with slight limitations work well with conventional on-site systems (e.g. septic tank and drain field). Soils with moderate or severe limitations usually require more expensive on-site systems that might need special ditching and/or mounding, or require special components.

FORESTS

Forests are a benefit to New Kent County both economically and environmentally. The forest industry is a major part of the economy in the County. Forests benefit the environment by improving water quality and regulating water supply. Water quality is improved through the reduction of erosion and the sedimentation of lakes and streams. Water supply is regulated by the forest's ability to prevent the rapid runoff of precipitation from the land. Forests clean the air by acting as a filter or "sink". Oxygen is exchanged for carbon dioxide during the process of photosynthesis (the process of converting light energy into useable energy) thus keeping these two constituents in balance. Forests provide habitat that is used by many animals for shelter, food, and nesting sites. Forests are aesthetically pleasing and provide attractive homesites and recreational areas.

The following information is part of a larger document being prepared for the County by the Virginia Department of Forestry. Forests cover seventy-five percent (102,256 acres) of the land mass in New Kent County. Forest cover is fairly evenly distributed throughout the County, only broken to any significant extent by some of the large agricultural tracts along the Pamunkey River. One area of concentrated forest cover occurs south of I-64, bounded by Route 155 to the west, Route 60 to the south, and Diascund Reservoir to the east. Seventy percent of the forest land is in private ownership, twenty-nine percent is owned by industry, and less than one percent is owned by state or local government. Major forest types in the County are loblolly pine which makes up thirty-five percent (36,269 acres) of the County, oak-pine fifteen percent (15,383 acres), oak-hickory forty-five percent (45,985 acres), and oak-gum-cypress five percent (4,604 acres). Virtually all of the trees produced are of commercial quality.

Map 10 shows soil productivity for timber production in New Kent County. More specifically, the map shows soil productivity for loblolly pine growth. Loblolly pine was used in determining productivity potential for this map because it is a widely found commercial variety in the County. Productivity potentials for other tree species will follow a similar pattern, although growth will be lower. The criteria used to determine productivity potential came from U.S. Soil Conservation Service and U.S. Forest Service methodology.

Productivity potential is represented by site class. There are five site classes, with class I representing soils with the highest production potential on down to class V which represents soils with the lowest. New Kent soils fall into class II, III, and IV. On this map class III soils have been further divided into soils with a productivity rating of at least 114 cu.ft./ac./yr., and those with a productivity rating of at least 105 cu.ft./ac./yr.

It is important to note that lower productivity class III soils are typically found along ridge lines where many of the County's roads are constructed. Higher productivity class III soils are found along secondary stream drainages, and the highest productivity class II soils are found along the flood plains of the Pamunkey and Chickahominy rivers. The County is fortunate in that as development occurs along the highways in the lower productivity class III soils, water quality can be maintained by keeping the higher productivity class III and II soils forested.

PRIME FARMLAND

Prime farmland is determined by the characteristics of the soil. In addition, moisture and a sufficiently long growing season must be present. The U.S. Department of Agriculture has defined prime farmland soils as "soils that are favorable for the economic production of sustained high yields of crops". In addition, "prime farmland soils produce the highest yields with minimal inputs of energy and economic resources, and farming these soils results in the least damage to the environment".

Prime farmland is important to identify within the County to plan for its best use. Development can be encouraged in other less productive areas, while prime farmland is preserved for its highest and best use. In this way energy is not needlessly wasted on the cultivation of marginal land and some measure of environmental protection is achieved.

The U.S. Soil Conservation Service (SCS) has determined that approximately thirty-six percent (49,346 acres) of New Kent County is made up of prime farmland. Map 11 shows large areas of prime farmland along the Pamunkey River, along the eastern and southeastern New Kent/James City County line, along the Chickahominy River, and running north-south along Route 155 in the center of the County.

RARE AND ENDANGERED SPECIES

Rare species are plants and animals that, because of their low numbers or the scarcity of the habitat in which they live, are in danger of extinction. Endangered species are those in imminent danger of extinction throughout their range. Another category, threatened species, are those that appear to be approaching endangered status.

The extinction of many species of plants and animals have occurred through the ages from both natural and manmade causes. Climate changes, overcompetition from other species for habitat, and predation are examples of natural causes. Through overzealous

hunting and the ability to dramatically change the landscape through development, man has greatly accelerated the rate at which species are lost.

Information on the location of rare and endangered species in the County was obtained from the Virginia Natural Heritage Program (VNHP) under the Virginia Department of Conservation and Natural Resources. This information should not be considered comprehensive. A comprehensive study for the County has not been conducted. There are certainly many other locations of rare and endangered species that have not been identified.

Map 12 shows those areas in New Kent County that contain rare and endangered species. Each block contains 661 acres. These blocks should not be considered buffer areas for the protection of rare and endangered species. They only indicate that a species is located somewhere within the block. Those blocks with a solid outline contain an area where a report (sighting verified by VNHP staff) of a rare, endangered, or threatened species has occurred. The blocks with a dashed outline contain locations that historically contain rare, endangered, or threatened species. Historic locations were found through the review of research literature by VNHP staff.

Table 11

Reported and Historical Rare and Endangered Species
New Kent County

Birds

bald eagle

Insects

rare skipper

Reptiles

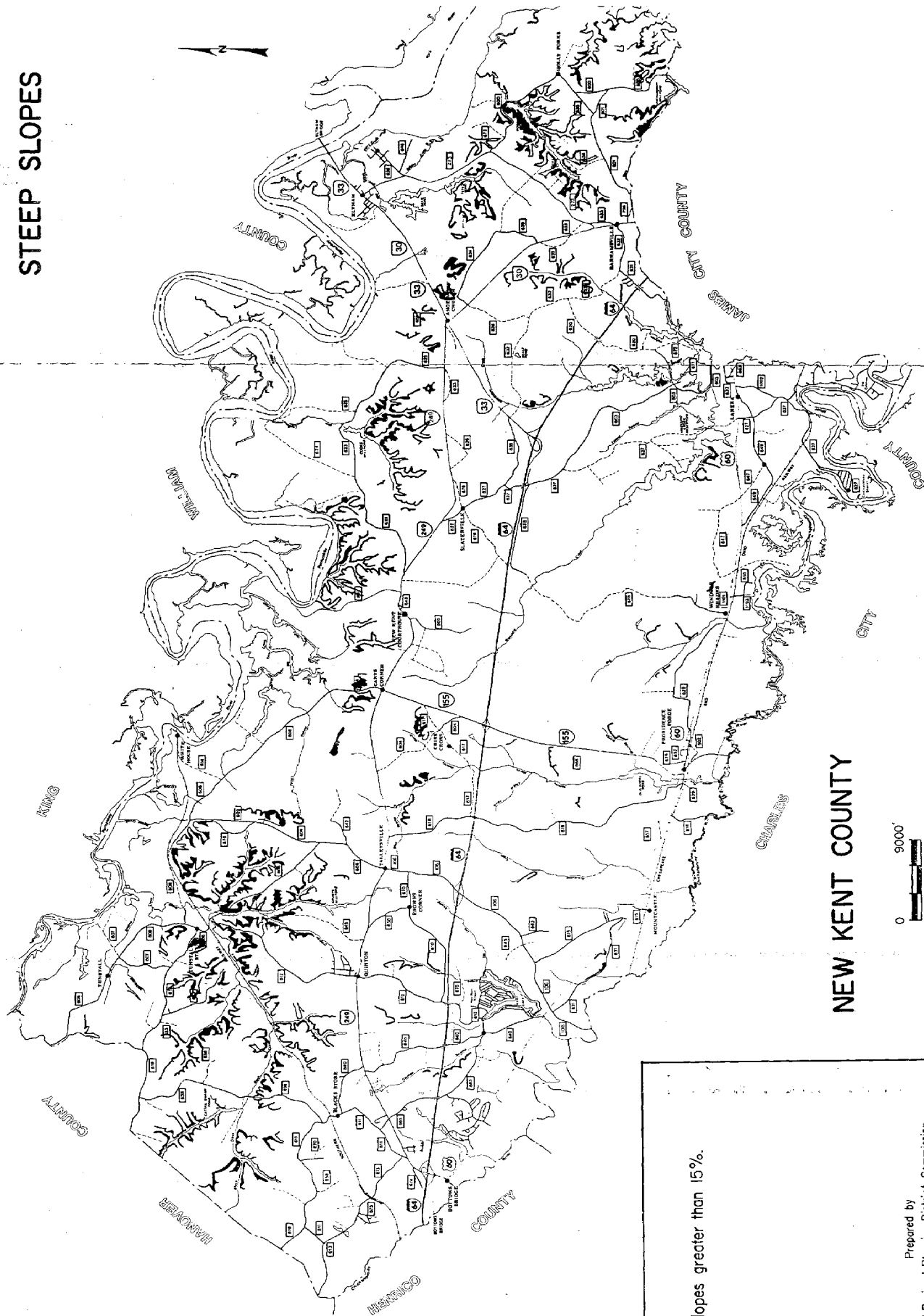
glossy crayfish snake

Plants

long's bitter cress	prairie senna
three-square bullrush	yellow cowlily
hard-stemmed bullrush	fen orchid
trailing loosestrife	adder's tongue
sensitive joint-vetch	galingale sedge
virginia least trillium	parker's pipewort
mat-forming water-hyssop	beaked spikerush
carolina yellow-eyed grass	

Source: Virginia Natural Heritage Program

STEEP SLOPES



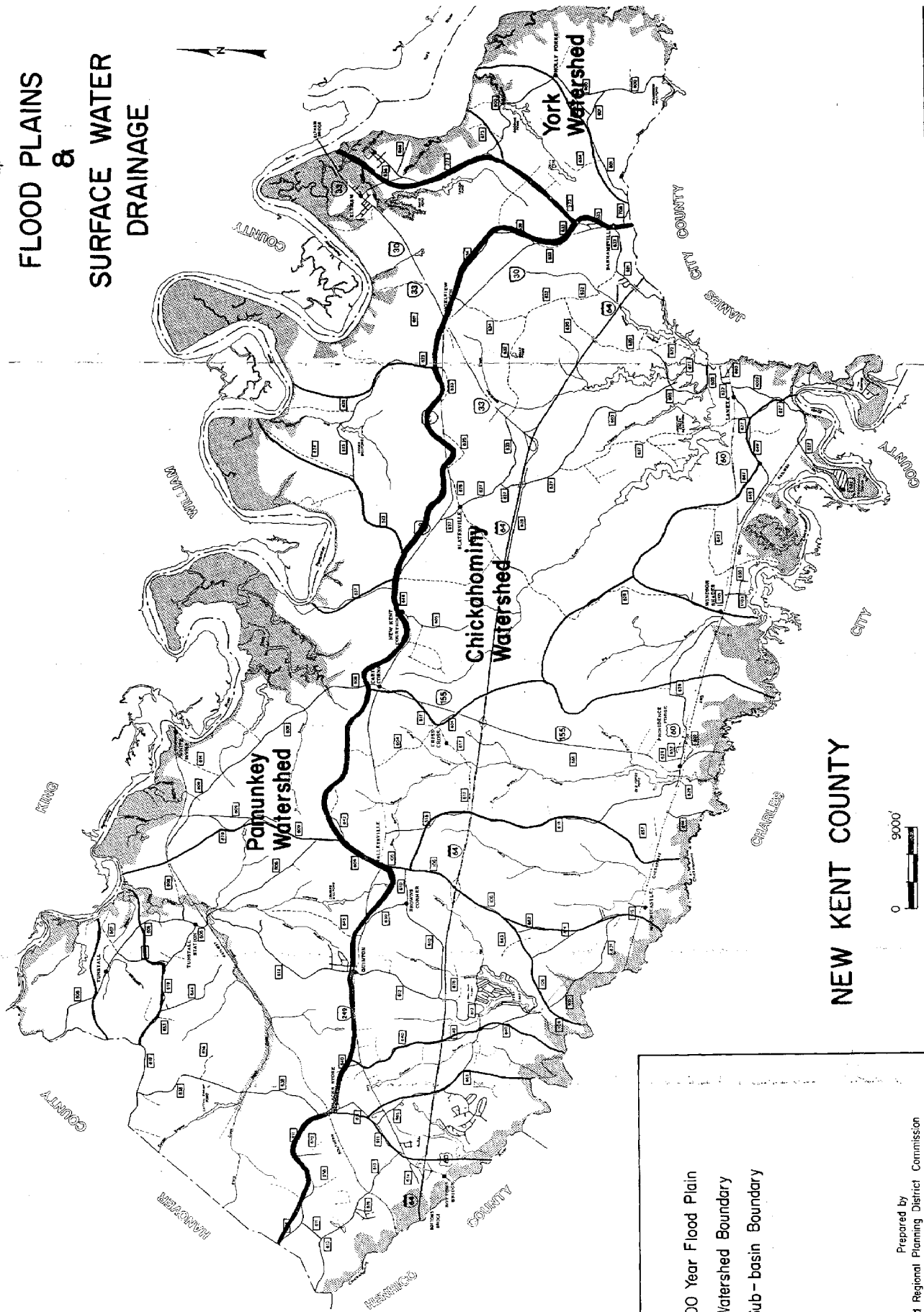
 Slopes greater than 15%.

Prepared by
Richmond Regional Planning District Commission

NEW KENT COUNTY

0 9000'

FLOOD PLAINS & SURFACE WATER DRAINAGE



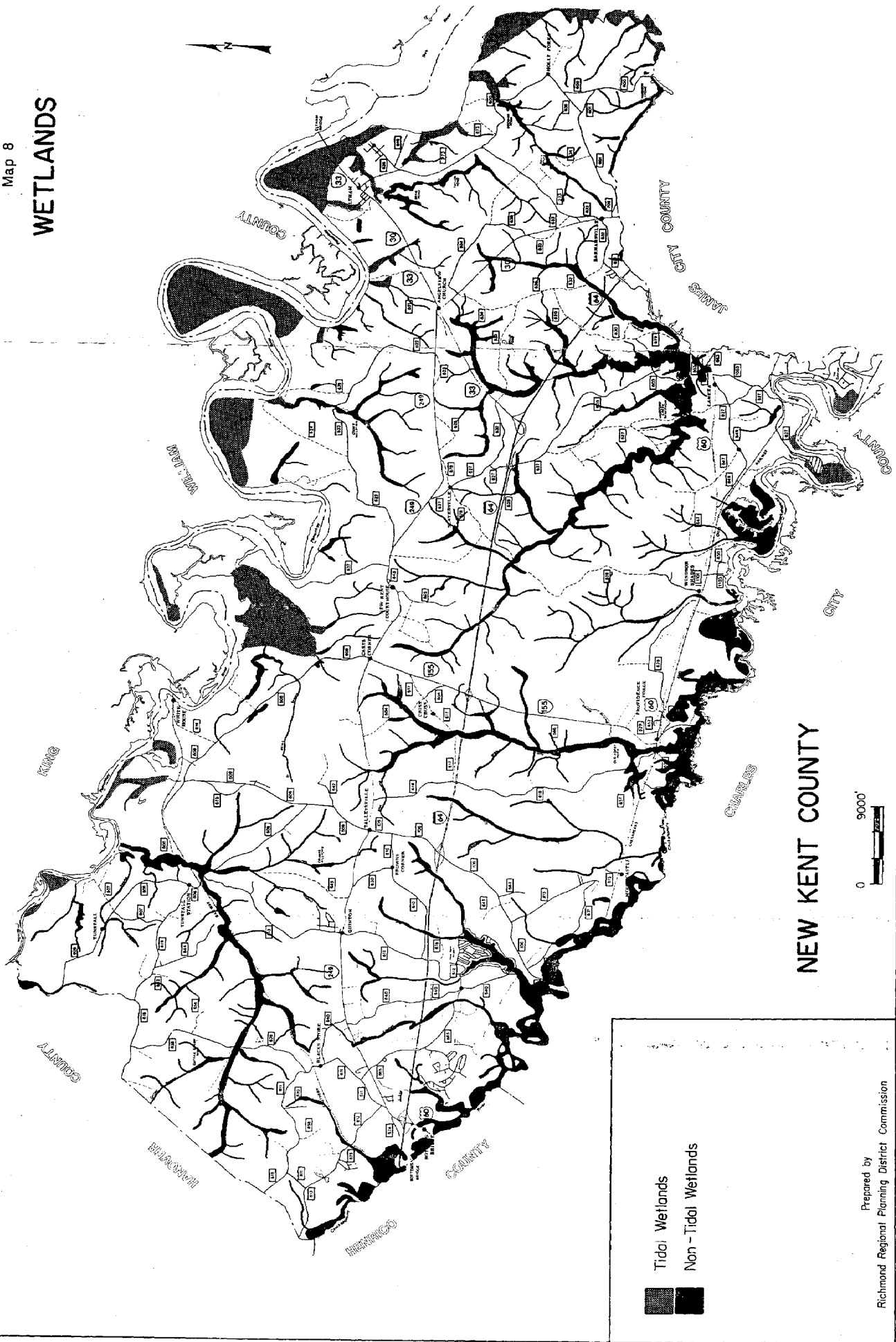
NEW KENT COUNTY



- 100 Year Flood Plain
- Watershed Boundary
- Sub-basin Boundary

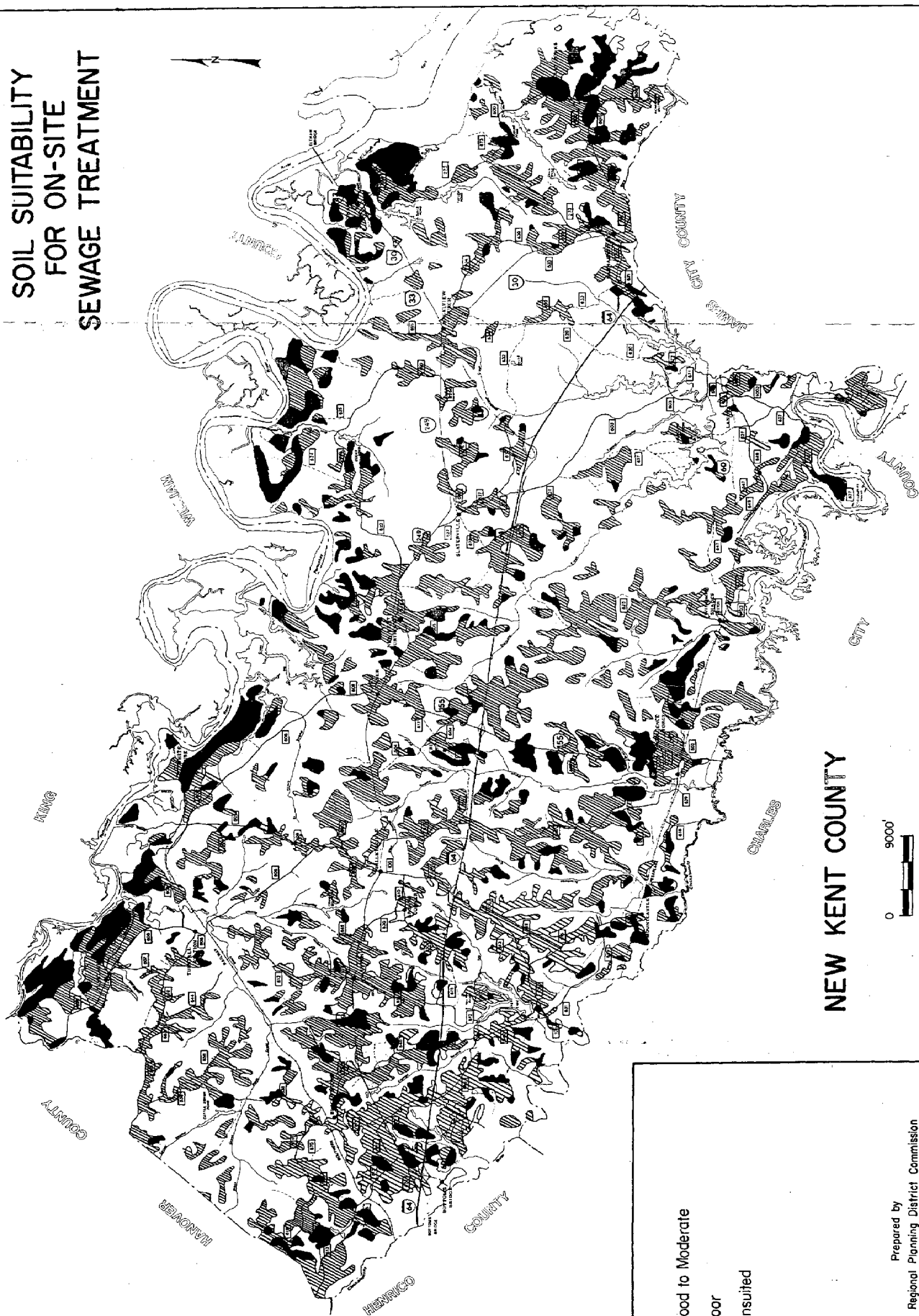
Prepared by
Richmond Regional Planning District Commission

WETLANDS



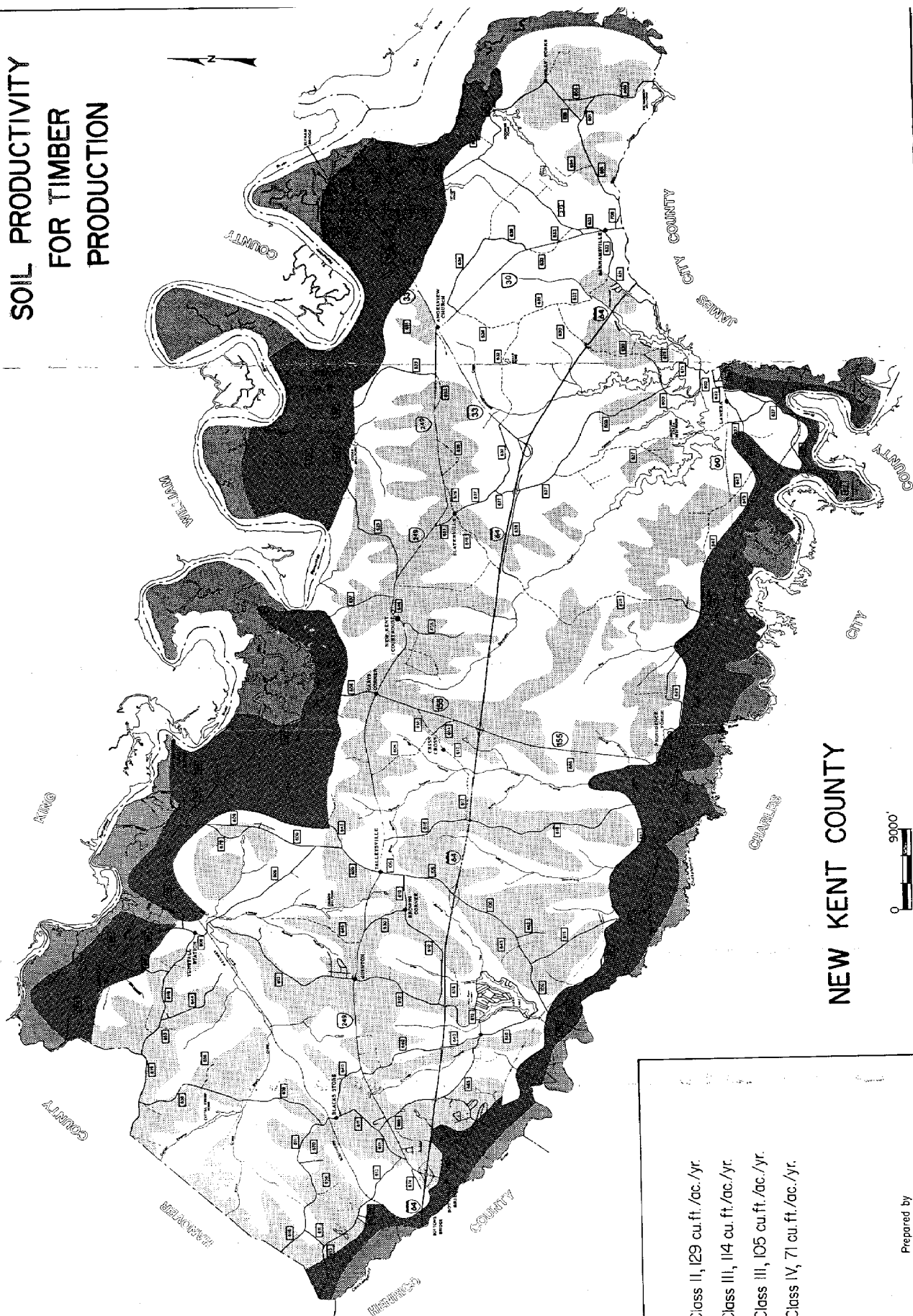
Map 9

SOIL SUITABILITY FOR ON-SITE SEWAGE TREATMENT



SOIL PRODUCTIVITY FOR TIMBER PRODUCTION

Map 10



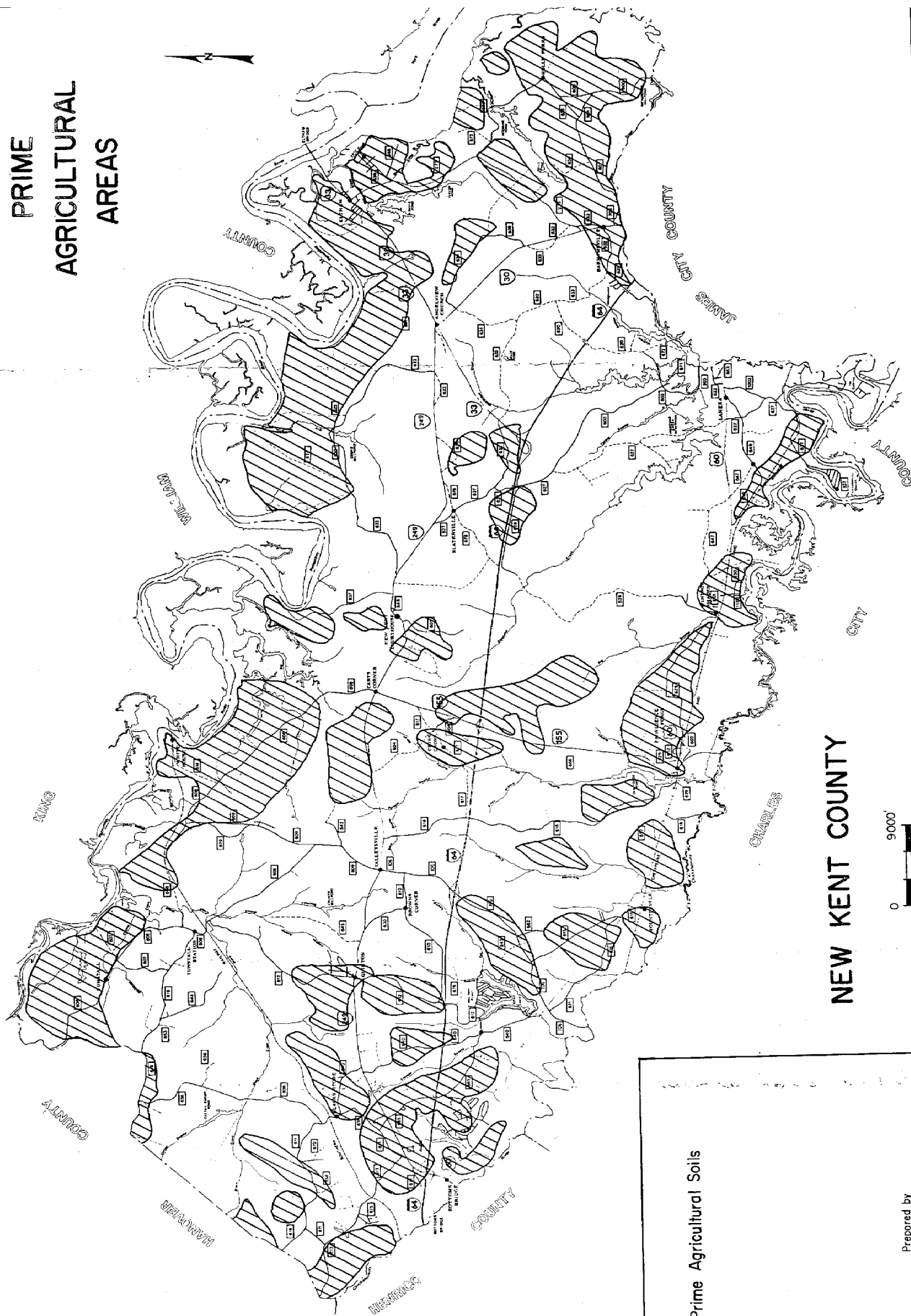
- Class II, 129 cu. ft./ac./yr.
- Class III, 114 cu. ft./ac./yr.
- Class III, 105 cu. ft./ac./yr.
- Class IV, 71 cu. ft./ac./yr.

NEW KENT COUNTY

0 9000'

Prepared by
Richmond Regional Planning District Commission

PRIME AGRICULTURAL AREAS

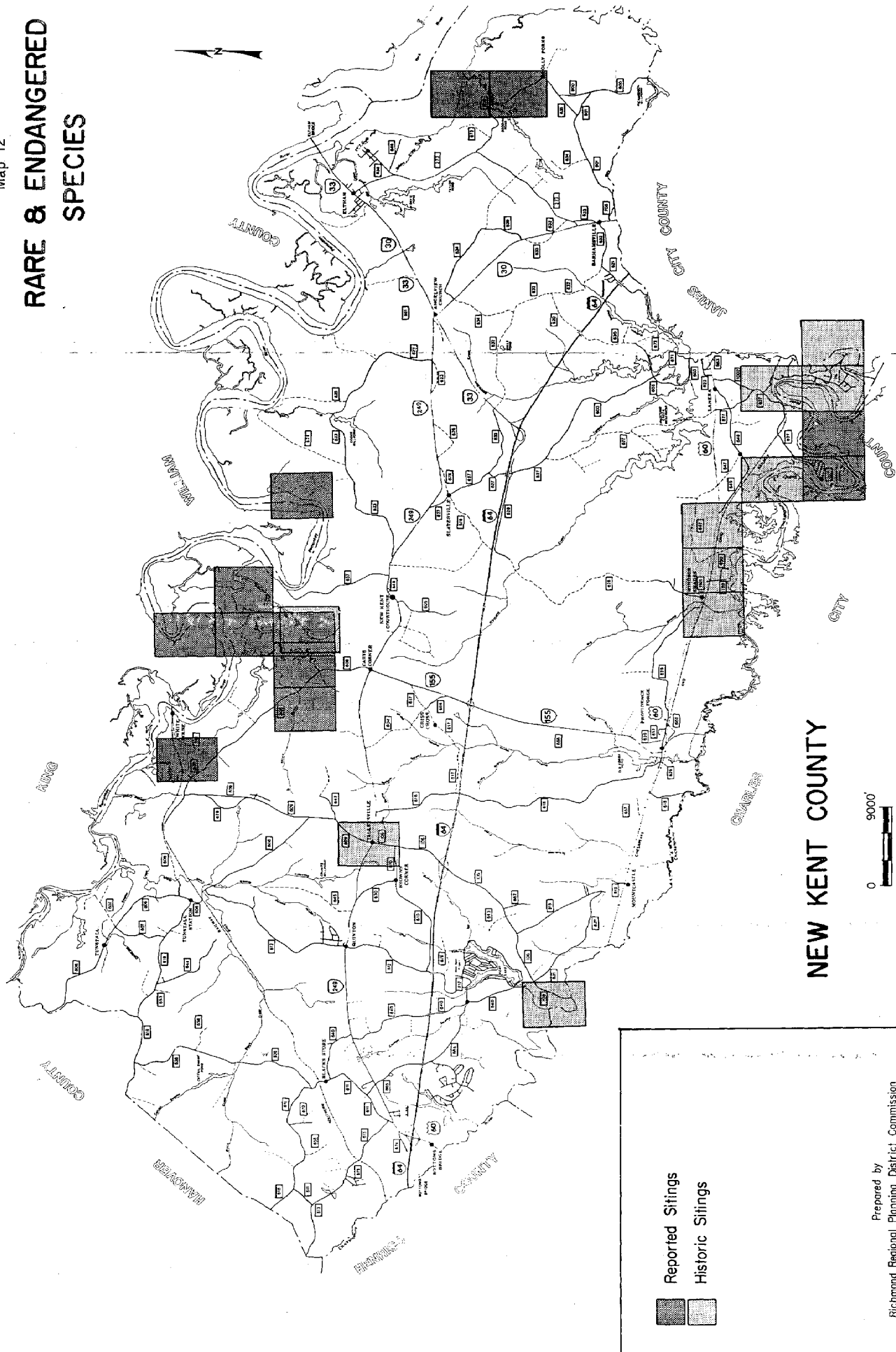


Prime Agricultural Soils



Prepared by
Richmond Regional Planning District Commission

RARE & ENDANGERED SPECIES



DEVELOPMENT ASSESSMENT

The second phase of the planning process synthesizes all of the data which has been surveyed and develops a picture of the existing condition of the County. By taking an realistic look at the County combined with what is happening in the region, the future development potential of the County can begin to be determined.

This section discusses regional development trends and County development trends. It also points out the County's assets and concerns which may influence the rate and intensity of development. Many of the factors, such as regional growth, are beyond the County's direct control. However, by identifying these factors and understanding their effect on the County's future, more effective development strategies can be formulated to shape a future development pattern.

DEVELOPMENT TRENDS IN THE REGION

The Richmond region is experiencing steady growth in population, housing, and employment. Statistics indicated that population growth in the region exceeded population growth in the State by 2.5 percent between 1980-1985. Population forecasters anticipate continued growth in the region into the next century. Housing stock in the region grew faster than the population, indicating a 11.5 percent increase during 1980-1985. The regional economy has also kept pace with regional growth trends. Employment increased by 9.6 percent during 1980-1985 while unemployment rates remained low.

Although many positive benefits have resulted from the growth the Richmond region has experienced, growth in the region has been very unbalanced. Some localities in the region are feeling great development pressure. Development is sprawling across the land, creating difficulty in delivering basic services to new residents. Other localities in the region remain rural, showing little signs of development pressure. As growth is expected to continue in the future, rapidly developing localities are searching for ways to manage growth, while rural localities need to begin planning for new development in anticipation of the growth that is certain to come.

DEVELOPMENT TRENDS IN NEW KENT COUNTY

New Kent County has experienced considerable growth since the 1970s. Population has increased by approximately 87 percent since the 1970 census. From 1980 to 1985, population increased by 21.7

percent, a much higher growth rate than the State or the region. The number of housing units has also doubled since the 1970s. Employment, however, has experienced less significant change, as a majority of County residents work outside the County.

Even though New Kent has experienced substantial growth, most of the County remains rural in nature. The majority of the development has occurred in western New Kent County. However, it is very likely that development pressure will continue to increase throughout the entire County. Population projections for the period of 1990 to 2010 indicate continued growth, twice the rate of increase as predicted for the region. Residential development is also expected to continue in the County. The number of building permits issued in recent years has far exceeded projected housing demand. Employment projections show some expansion of the County's economic base in the future, but not to the proportion of anticipated population growth or residential development.

These trends indicate that growth is occurring in the County as anticipated. New Kent County has a favorable attitude toward growth, but desires to direct development into specific areas. Growth management will benefit future development in the County by preserving areas of open space, protecting environmentally sensitive lands, and concentrating development in order to make the installation of public utilities more feasible and service delivery more efficient.

DEVELOPMENT ASSETS

The County is fortunate to contain a variety of assets which contribute to the quality of life. Residents are able to enjoy a rural lifestyle and still have access to many urban amenities not often found in rural areas. Following is a list of assets as identified by the County Planning Commission.

Rural Nature of the County

A majority of the County land area remains undisturbed by development. In fact, forests and open space cover approximately 84 percent of the County. Many different species of wildlife can be found roaming around the County, and the air and water remain free from pollutants found in urban areas.

The County's natural beauty and rural nature have been significant influences in bringing new people to the locality. Much of the land in the County is physically suitable for development, as opposed to surrounding localities, and can be purchased at relatively low prices.

Location in the Richmond-Williamsburg Corridor

New Kent County is located between two urban areas that offer a variety of employment, shopping, and recreational opportunities not found in rural areas. By accessing Interstate 64, County residents are within minutes of jobs, commercial goods, services, and urban amenities.

Both the Richmond region and the Hampton Roads area are experiencing steady growth. This growth pressure has caused developers and investors to start to consider the County as a prime area to target development. The County is one of the final three sites being considered for the development of a major horse racing track in the State. Evidence of development can also be seen around the edges of the County. Residential and commercial development is concentrating in the Bottoms Bridge area, while a large scale residential community is proposed for eastern New Kent County.

As growth in the region continues, New Kent County will become more and more susceptible to development activity. Therefore, the County must begin now to take action to plan for future development and the demands that development will place on the County.

Chickahominy, Pamunkey, and York Rivers

The County contains several miles of river frontage. Most of these river areas remain undisturbed by development activity, thereby adding to the natural beauty of the County. There are especially impressive scenic views along the Pamunkey river in the northern portion of the County where virtually no development activity has occurred.

The rivers offer a important advantage to the County because of their possible use for supplying drinking water. Presently, water from the Chickahominy river is being used by Newport News for drinking water purposes. The Pamunkey river is also considered to have significant amounts of drinking water available. New Kent County along with many other localities are looking to the Pamunkey river as a primary drinking water resource in the future.

The rivers have provided a major recreational resource for County residents and visitors to the area. The rivers are used for fishing, boating, and other water sporting activities. There are several access points along all three rivers; yet, the Chickahominy river has developed as the primary recreational river in the County. Marinas, campgrounds, and related activities are scattered at many locations along that river.

Transportation Network

The County is very fortunate to have a superior transportation network. Perhaps the biggest asset to the County overall is the presence of Interstate 64 which cuts through for the entire length of the County. The interstate provides County residents with easy access to employment centers and cities in the region. The presence of the interstate also increases the economic development potential of the County. Access to a major transportation system is one of the chief determinants developers use to locate commercial and industrial development.

The interior road system provides residents with easy access throughout the County. New Kent County also has an exceptional system of primary roads. Approximately 7 primary roads are found within the County, a significant number for a rural community. Roads in the County are not congested and, to date, have easily accommodated existing amounts of traffic.

The New Kent Airport is viewed as an important asset by the County. The airport is now a general aviation facility used primarily by local residents. However, the County plans to expand service at the airport in the future. The Regional Airports System Plan, which has been endorsed by the County, points out the importance of the Airport to the regional general aviation community. The airport's location makes it a prime site for the location of smaller general aviation aircraft should Richmond International implement the recommended plan of decentralization of this type of aircraft.

Industrial Park

The County recently purchased land adjacent to the airport in order to develop an industrial park. The industrial park will primarily house light industrial uses. The County anticipates using portions of the industrial park as a warehousing area. The industrial park will provide more job opportunities to County residents and serve as an excellent contributor to the tax base.

Having the industrial park in close proximity to the airport will serve a dual purpose. The airport will serve as a convenient efficient means of transporting goods and employees for those industries located at the park. This convenience of air service will help increase the development potential of the industrial park, while the airport will benefit by the increased number of users the industrial park will generate. The County hopes that the interrelationship between the industrial park and the airport will help increase the economic and development potential of both these uses.

Community Facilities

Even though New Kent County is rural in nature, the locality provides a complete range of community facilities and services. The New Kent Courthouse area acts as the center of County government activity. Other community facilities and services are provided at several locations throughout the County.

Construction of a new educational facility was recently completed in the County, dividing the school system into four units instead of three. This addition will help provide more room for County children and increase the quality of education for these children.

Outdoor Recreation / Wildlife

There are many opportunities to enjoy outdoor sports in the County. Hunting is a big "past time" in New Kent witnessed by the numerous hunting clubs scattered throughout the County. The undeveloped nature of the County contributes to the abundant supply of wildlife that can be found in the area. As stated before, the rivers also provide residents and visitors with many opportunities to enjoy all types of water sporting activities.

County Attitude

County officials are always seeking to improve the quality of life in the County. The local government is very progressive in nature and is seeking growth and development, but not at the cost or detriment to County residents. The plan's goal is to effectively manage the growth that is anticipated to occur in the County in a manner that will most benefit County residents.

DEVELOPMENT CONCERNS

As New Kent County confronts its future, there are several concerns and issues that need to be addressed. Some of these concerns will be resolved as development occurs in the County, while other concerns, if not identified and examined now, may evolve into more serious problems.

Public Utilities

New Kent County does not have a central water and sewer system. Development is scattered throughout the County, making a central water and sewer system virtually impossible. The majority of County residents have individual septic tanks.

The County does, however, maintain water and sewer systems in some of the subdivisions in which water and sewer systems were installed by the developer. Also, a few subdivisions in the County

have private water and sewer systems. Many of these residential areas are located in undeveloped, forested areas, hidden and isolated from the rest of the County. This type of development pattern limits the ability of the County to connect these systems, service a large area, or install a central system.

To make a central water and sewer system feasible and cost effective, the County will have to concentrate development into more compact areas. The western portion of New Kent County has witnessed some concentration of commercial and residential development. At the present time, the Bottoms Bridge area seems the most capable of accommodating public water and sewer. Future development in the western portion of New Kent County should seek to infill existing undeveloped areas first before spreading further east.

Additional Sources of Drinking Water

Securing additional resources for the County's future drinking water supply is a significant concern of the County. Reports regarding the County's future drinking water supply conclude that existing water resources will be able to provide drinking water into the early years of 21st century. County officials are discussing long term strategies on how to secure future water resources and how to utilize the Pamunkey river as a possible drinking water supply.

Conversion of Agricultural Land

Development activities in New Kent County are expected to increase in the future. As development pressures increase and land becomes more valuable, owners of agricultural land will become more inclined to sell their property to developers.

One of the tools the County has in place that could be used to help decrease the conversion of agricultural land is Agricultural Forestal Districts (AFDs). However, the lands in AFDs are given voluntarily by interested property owners who receive a small tax write-off for their donation. This tax incentive does not seem as profitable as the financial return a property owner could receive from a developer seeking land for development purposes.

Impact of Future Growth on Highway System

The County is in the process of making various improvements to its infrastructure in order to prepare for future growth and development. Local officials believe that the primary and secondary roads in their present condition will not be able to accommodate the traffic which will be generated by intensive development in the future. The County can not take concrete action upon these concerns because road improvements are the responsibility of the Virginia Department of Transportation (VDOT).

Unfortunately, representatives from VDOT admit that, as a general rule, road improvements happen after-the-fact, that is after a traffic problem or traffic congestion is already present.

Route 106-609

The County is paying close attention to Route 106-609. The Virginia Department of Transportation has seriously discussed the possibility of making Route 106-609 a loop road around the Richmond region. If the road developed in this manner, it would significantly impact development in New Kent, especially the western portion of the County.

Route 33

Local officials are looking to develop commercial and industrial development along the Route 33 corridor. The corridor is seen as a prime location for commercial and industrial activity because of the corridor's ability to handle large amounts of traffic and intensive uses.

At the present time, land adjacent to the corridor is undeveloped. Commercial and industrial development along Route 33 would generate growth in the eastern portion of the County, which would serve to balance development activity in the County. Commercial and industrial development would also further diversify the local economy, provide employment and shopping opportunities for County residents, and increase the local tax base.

Limited Rental or Multi-Family Development

Housing opportunities in the County are limited primarily to single family residential development. Around 75 percent of the County's housing stock is owner-occupied. Multi-family and rental housing is virtually unavailable. The unavailability of public utilities has had a considerable impact on the development of multi-family housing.

The lack of housing opportunities have left few alternatives for the incoming resident who does not have the purchasing power or desire to buy a lot and build in the County. Yet, regardless of these limitations, the County has already, to a great extent, established itself as a bedroom community to the Richmond region and Hampton Roads area. As development activity continues to increase and more and more people migrate to New Kent, the likelihood of multi-family residential development locating in the County will also increase.

Limited Commercial Development

The County has very little commercial development. Small commercial centers are located in the villages of Providence Forge, Eltham, and Bottoms Bridge. These areas have a limited selection

of goods and services. As a result, County residents have to purchase many goods and services outside the County and potential sales tax revenues are lost.

As the County population continues to grow, commercial development should also increase. Commercial activity needs to continue to locate in the village areas in an effort to concentrate development activity and population in the County. This type of development pattern will help increase the County's ability to provide services to residents, encourage growth management, as well as help preserve rural areas within the County.

Limited Employment Opportunities

Very few jobs are available in the County. In 1980, 80 percent of the County residents were employed in other jurisdictions. While this is not unusual in a rural area, the lack of employment opportunities places the County in an unstable, unhealthy position. County residents are forced to leave the County to work and may leave the County to live. On the other hand, if people choose to live in the County, but work and spend money in other localities, the economic base and tax base of the County continues to diminish. All these forces combine to discourage any new development activity from the County.

Limited Number of Community Recreational Facilities

The County has very few community recreational facilities. There are no parks in the County and only one playing field, other than the fields at the County's high school, that is available for recreational use. The County presently relies on the school facilities as the main recreational resource.

The County feels that the school facilities can adequately serve the County's present needs. Yet, in the future, as more people come to New Kent County to live, these facilities will become insufficient. Incoming residents, arriving from urban areas, will expect the County to have recreational amenities.

The County should develop a plan to expand recreational facilities based on population projections. These types of services are needed to provide residents with opportunities for leisure and recreation. Once these facilities are expanded, people will not be forced to leave the County to participate and enjoy certain sports.

Limited Economic Base

Industrial and commercial development are usually prime contributors to a local tax base. The lack of a strong industrial and commercial base has a profound impact on the County and its residents. Without industrial and commercial components to

contribute to the tax base, the County is forced to rely on other sectors for revenues. This means that other types of development must either shoulder a larger than average portion of the tax bill or the County must go without some services.

GOALS AND OBJECTIVES

The following statements lay a foundation for the future development of New Kent County. These goals and objectives provide a framework to develop the County's future land use plan. These statements have been formulated by analyzing the County's existing conditions, regional and local development trends, development assets and constraints, and determining the approach and direction the County wishes to pursue for future growth and development. Goals are general statements which provide guidance to the course of future development, while objectives establish a way to accomplish these goals.

Goal 1 Overall Development

To encourage well planned, orderly growth as a means to meet the physical, economic, and social needs of County residents.

Objectives

- (1) Promote a balanced development pattern as a means of providing sufficient living, shopping, and working areas.
- (2) Encourage compact, planned development as a means of reducing the conversion of land to urban purposes.
- (3) Promote well-designed development to assure compatibility with surrounding land uses.
- (4) Encourage the retention of sufficient amounts, types, and sizes of land at appropriate locations in order to accommodate the future needs of County residents.
- (5) Promote the development of capital intensive business and industry as a means to increase the County's tax base, stimulate the County's economy, and expand the County's employment opportunities.

Goal 2 Environmental Preservation

To preserve and protect the natural environment while permitting development to occur in a manner consistent with the capacity of land to handle development.

Objectives

- (1) Protect scenic and natural features from inappropriate development.

- (2) Control development in and adjacent to flood plains, wetlands, steep slopes and other sensitive areas as a means to protect the environment and water quality.
- (3) Promote land development and site design that is sensitive to environmental constraints.

Goal 3 Residential Development

To encourage the development of well-planned residential neighborhoods which offer a wide variety of densities and housing types.

Objectives

- (1) Encourage residential development at densities appropriate with existing and planned utilities, roads and environmental constraints.
- (2) Provide for a variety of housing densities and types including apartments, townhouses, and mobile home subdivisions.
- (3) Encourage the construction of good quality housing in a complete range of prices.
- (4) Encourage the use of innovative site design such as planned unit developments and clustering.
- (5) Discourage residential development in areas better suited for commercial, industrial, or agricultural land uses.
- (6) Assure that the existing housing stock will be maintained at minimum standards of health and safety.

Goal 4 Commercial Development

To provide for the development of a variety of commercial activities at appropriate and convenient locations.

Objectives

- (1) Encourage the location of commercial development within villages, near interstate interchanges, and within close proximity to public utilities and the circulation network.
- (2) Provide sufficient land for the development of community and regional shopping and service needs.
- (3) Require site design which is in keeping with the physical environment and character of the County.

- (4) Discourage commercial development at intersections, the stripping of commercial uses along major roads, and other situations where additional traffic generated would cause undue traffic congestion.
- (5) Provide opportunities for water dependent commercial activities based on anticipated needs.

Goal 5 Industrial Development

To encourage the development of a diverse industrial base in order to expand employment opportunities and add to the tax base.

Objectives

- (1) Provide adequate land, services, and utilities for the development of a variety of light to moderate industrial uses.
- (2) Locate industrial development in areas with access to major highways, rail or air service.
- (3) Develop site design and performance standards for industrial uses that reduce or eliminate potential negative impacts on the environment, water quality, and adjacent land uses.
- (4) Promote the use of industrial parks as a means to concentrate industrial development, increase the efficiency of public utilities, and better integrate industrial development into the landscape.

Goal 6 Transportation

To provide County residents with a transportation network which is safe, efficient, and convenient and will accommodate future growth.

Objectives

- (1) Locate land uses based on anticipated traffic generation, the impact on existing traffic patterns, and estimated future traffic demands.
- (2) Encourage the proper maintenance and improvements to the existing transportation system in order to meet the needs of the existing and future population.
- (3) Promote transportation routes that lessen travel time between residential, commercial, employment, and community centers.

- (4) Continue to upgrade the New Kent Airport in keeping with its role as the County's general aviation facility.
- (5) Maintain viability of the airport by limiting adjacent development to uses compatible with aviation activities.

Goal 7 Agricultural and Forestal Development

To preserve valuable agricultural and forestal resources as an important part of the local economy and to retain the landscape of the County.

Objectives

- (1) Protect agricultural and forestal lands, particularly prime agricultural lands, from development that will lead to the premature loss of these lands.
- (2) Promote the use of best management practices and other techniques as a means to lessen pollution and retain valuable soils.
- (3) Retain agricultural and forestal land as a natural buffer to separate various land uses.
- (4) Provide financial incentives that will aid in the retention of agricultural and forestal land.

Goal 8 Historical and Archaeological Preservation

To preserve and promote the historical and archaeological resources of the County.

Objectives

- (1) Encourage public and private actions to protect historical and archaeological sites.
- (2) Promote development that incorporates historical sites provided such sites are properly preserved.

Goal 9 Community Facilities

To provide adequate public facilities and utilities to County residents in a manner reflecting both present needs and desirable patterns for future growth.

Objectives

- (1) Develop community facilities and utilities to meet the needs of the existing and future population.

- (2) Insure that new development is provided with adequate community facilities and utilities.
- (3) Identify and protect surface and groundwater resources to insure a safe and adequate water supply.
- (4) Provide adequate facilities and equipment for law enforcement, fire prevention, emergency medical, and other protective services.
- (5) Improve public access to the County's waterways.

FUTURE LAND USE PLAN

This section sets out a framework in which to achieve the goals and objectives. The future land use plan seeks to translate the general guidance stated in the goals and objectives into specific development strategies, future land uses, and development and land use policies. All three elements combine to direct future development and growth within the County.

The future land use plan is to be used as a tool to guide future development within the County. The plan's purpose is to assist in making land development decisions, and should not dictate what decision is made.

The future land use plan is general in nature. Numerical calculations, land use descriptions, and boundary lines contained within the plan are not precise or all-inclusive, but serve to provide reasonable measures the County can refer to in managing future growth.

The plan also represents a long term view of the County. This plan attempts to look 20 years into the future. Many things will occur before the year 2010 to affect the relevance of this plan. State law requires a review of the plan every five years to make the appropriate revisions to the document.

In order to develop a future land use plan, the County has made certain assumptions about the future. These assumptions are neither desirable or undesirable, but merely represent trends and factors that will influence future development in the County.

1. County population will continue to increase at a rate faster than the region. Population will increase from an estimated 10,690 in 1985 to 19,250 in 2010.
2. While decreases in family size and the aging of the population will impact the housing market, single family residential development on individual lots will remain the preferred housing type. Single family housing densities will typically range from 1 to 5 acres per unit.
3. Multi-family housing will be constructed in the County and compose 10 percent of the new housing stock.
4. Commercial development will increase as the County population increases. Commercial development within the County will primarily serve local residents.
5. Most residents will continue to commute to jobs outside the County. Government and retail trade will continue to be the leading employers within the County.

6. Industrial development will increase due to regional growth and the transportation system. These industries are expected to offer employment opportunities to local residents and contribute significantly to the local tax base.
7. The transportation system will remain virtually the same. Interstate 64 will remain the principle east-west transportation route within the County.
8. Public utilities will be necessary to meet the needs of the future population and development. Water and sewer service will be available in a vast majority of the County by 2010.
9. A declining agricultural economy and development pressures within New Kent County will entice property owners to convert agricultural lands to more intensive land uses.
10. Federal and State actions to improve water quality will lead to efforts to adopt regional approaches to water and wastewater treatment problems. These efforts will limit a locality's ability to construct individual water and sewer treatment facilities and lead to regional solutions.

LAND USE REQUIREMENTS

In preparing a future land use plan, care must be taken that sufficient space is set aside for living, working and shopping areas. Table 12 set forth the minimum land area needs for various land uses based on the projected 2010 population of 19,250.

The long range nature of the plan requires that more land than the minimum requirements be designated in the land use projections. Allocating additional acreage insures that adequate land at appropriate locations will be available to meet the goals of the plan should projections of future growth be underestimated. In addition, the County and private land owners will have increased flexibility in the choice of sites. This approach is in keeping with the idea of the plan serving as a guide.

TABLE 14
EXISTING AND PROJECTED LAND USE REQUIREMENTS
NEW KENT COUNTY, 1989 and 2010

<u>Land Use</u>	<u>1989</u>	<u>Acreage</u> <u>2010</u>	<u>Percent</u> <u>Change</u>
Forest, Open Space and Agricultural	126556	121049	- 4
Residential	5846	9391	61
Single Family	5846	9352	60
Multi-Family	0	39	NA
Commercial	501	1370	173
Industrial	112	287	156
Transportation/ Utilities	2521	3439	36
Public Services	144	144	0
TOTAL	135680	135680	

Source: Richmond Regional Planning District Commission

DEVELOPMENT STRATEGIES

Development strategies represent major principles which will serve as the basis for guiding future growth within the County. These strategies are derived from goal and objective statements and must be adhered to in order to accomplish the plan.

These strategies set forth a development program to attain the desired future development pattern. The strategies seek to encourage or discourage growth and development in specific areas and at specific locations throughout the County; thereby creating a physical arrangement of land uses. The following seven development strategies are seen as fundamental to the future development of New Kent County.

1. Concentrate residential, general commercial and office development in the western portion of the County.

The majority of the County's growth has occurred in the western portion of the County. This growth is due, in large measure, to development pressure coming from the Richmond area and eastern Henrico County. Easy access to Interstate 64 has also been a major stimulus to the development of western New Kent County.

The plan continues to direct growth and development into this portion of the County. Trends indicate that the development of western New Kent County will intensify. The aim of this strategy is to concentrate development in order to establish a compact, densely-populated area within the County. By increasing the population density within the area, the installation of water and sewer service becomes more probable. Increased population density also helps support commercial development within the area and expand job opportunities.

The strategy focuses on concentrating types of development which are the most desirable for the area. Significant amounts of residential development as well as some commercial development have developed. As more people enter the western portion of the County, commercial growth will occur and increase the likelihood of new office development.

2. Maintain development within the designated boundary lines of the Bottoms Bridge, Providence Forge, New Kent Courthouse, Lanexa, and Eltham village areas.

This strategy seeks to create densely-developed areas to serve as population centers for County residents. By maintaining development within designated boundaries, the villages become autonomous communities, offering residents a variety of housing, employment, and shopping opportunities. The villages also serve residents who live outside the villages by becoming convenient points of access for a variety of commercial goods, services, and community facilities.

Maintaining development within designated areas is beneficial in many other ways. First, the more compact an area becomes the more feasible the installation of water and sewer service is. Keeping development within the village as compact as possible also helps to alleviate development sprawl. Less undeveloped land is converted to higher uses which helps to preserve the rural nature of the County. Finally, the development of villages encourage community identity and pride.

3. Locate commercial and industrial development at interstate interchanges and appropriate locations along the Route 33 corridor.

The aim of this strategy is to target more intensive types of development at certain locations along the County's major transportation systems. Development of the interstate interchanges and Route 33 is seen as important elements to the future growth and development of the County.

Land adjacent to interstate interchanges is considered prime locations for development. Businesses and industries located at the interchanges would have convenient access to the interstate. Commercial development would also benefit from the number of potential customers who travel the interstate and have to periodically stop for commercial goods and services, such as gasoline, lodging or food.

The County also desires to develop Route 33 as a heavy commercial and industrial corridor. Route 33 is not heavily traveled at the present time nor is the land adjacent to the corridor heavily developed. In the future, development along this corridor could be similar to the development along Route 60 located at Williamsburg and Lightfoot. Development of more intensive land uses along this corridor is possible provided site planning and other planning techniques are used to control the access of such development.

4. Retain the rural nature of the County outside designated development areas.

As development activities increase, it will be necessary to manage growth in order to protect the County from haphazard development or development sprawl. This strategy assures that the land outside designated areas will be maintained as rural. Agricultural and forest land, especially prime tracts of these lands, is also needed to provide the production of food and forestry products. Once the lands are developed, these valuable resources are lost. Conversely, development within the County is to be limited to specific areas and locations. Through these measures, a balanced development pattern is achieved.

5. Restrict, and in some instances prohibit, development within designated environmentally sensitive areas.

The protection of environmentally sensitive areas is critical to the preservation of ground and surface water quality in the County and the Chesapeake Bay drainage basin. These lands provide natural habitat for a variety of plants and animals and also contribute to the natural beauty of the County. Keeping these important functions in mind, this strategy's aim is to protect environmentally sensitive area from inappropriate development, and, where necessary, prohibit development.

Development which is allowed within these areas should be done in a manner that is compatible with the environmental capabilities of the site. On-site and off-site impacts of the development should also be taken into account. Fortunately, the County has sufficient land area to meet their future development needs without resorting to the development of sensitive areas.

6. Utilize Interstate 64 as a means to encourage development within the County.

The County regards the presence of Interstate 64 in the County to be a major stimulus to future development. The County realizes that having such a major transportation artery in their locality increases the possibility that development will occur. Therefore, the aim of this strategy is to promote the interstate as a means to attract development to the area.

The interstate permits residential as well as commercial and industrial development within the County. It provides local residents with convenient, rapid access to regional employment centers. People can leave the urban areas to enjoy the rural lifestyle of New Kent County without feeling 'far away' from the city. Proper buffering between uses will assure a compatible mix of residential, commercial, and industrial development. Development should also be compact in order to eliminate sprawl and protect environmental lands and the rural nature of the County.

7. Locate capital intensive businesses and industries in close proximity to I-64.

The aim of this development strategy is to secure new business and industry within the County. Interstate 64 is used as a 'drawing card' to attract these new businesses and industries. Commercial and industrial development consider areas along the interstate to be prime locations for development because of the access and visibility the interstate provides. The County is most interested in securing major developments which will not only provide job opportunities to local residents but will also increase the economic base as well as contribute significantly to the local tax base.

FUTURE LAND USE MAP

This element of the plan sets forth a desired future land use pattern that defines what type of land development will occur within the County and where growth and development is anticipated. The development of the future land use map was based on existing land uses and patterns, future land use needs, and the development strategies. Future development of the County must also be consistent with the plan's goals and objectives.

The future land use map displays a desired development scenario for the County. (Refer to Map 14). It indicates areas where growth should be encouraged and areas where growth should be controlled or discouraged. This map serves as a guidance tool for County officials and should not be confused with the more specific zoning map.

The future land use map is similar to the existing future land use map adopted by the County in 1985. For example, the plan continues to concentrate development in the western portion of the County, protect environmentally sensitive areas, provide village centers and target development along the interstate interchanges. This map expands upon the development concept amended in 1985 taking into consideration the growth that has occurred during the past 5 years.

With the above in mind, the following text is a description of future land uses expected within the County by 2010. Before discussing specific areas within the County, an overview of development impacting the entire County or a majority of the County's land area is appropriate.

Countywide Development

A great majority of the environmentally sensitive lands are located along the rivers and streams. These areas are primarily undeveloped, and because of their intrinsic value should be protected from development in the future. Therefore, these lands are placed in the strictest land use category, conservation.

Approximately four water-dependent commercial uses are found scattered along the Chickahominy River. These existing facilities are adequate to meet the needs of the future County population. Therefore, this plan calls for no additional water-dependent commercial uses to be developed by the year 2010.

The majority of the County's land area is expected to be rural in nature. Forest and agricultural land is expected to continue to be the predominant land use within the County. Residential development that will occur in these agricultural areas will be in small subdivisions designed to fit in with the rural character of this area.

Western New Kent County

The western portion of the County is envisioned as the area to experience the bulk of future growth and development within the County. This area will predominantly develop residentially, but commercial, industrial, and office development is also expected in this area.

The western tip of the County near Orapax Farms, the area north of Route 60 to the interstate and Route 249, and the area north of Route 249 near the community of Quinton is designated for medium density residential. Residential development has already occurred to some degree within these areas. Most of the subdivisions located in these areas have some type of utility system which increases the likelihood of higher density residential development. The plan calls for low density residential development in the area extending from Blacks Store/Route 611 to the interstate and Browns Corner. Low density residential development is also designated south of Route 60 near the Five Lakes subdivision. These areas are less densely populated, but are expected to fill in by the year 2010.

Bottoms Bridge is designated as a village. The area is well-suited for commercial, office and residential development because of its location and easy access to the interstate. Two small commercial clusters already exist in the community. Bottoms Bridge functions as a commercial service area for both local residents as well as the many people who travel through the County. Much residential development has occurred around Bottoms Bridge, and the area is expected to become more densely populated in the future.

Mixed use development is proposed immediately adjacent to Bottoms Bridge on Route 60. A variety of land uses could develop, but residential-support commercial development is primarily foreseen to develop because of the many residential subdivisions located in the area.

The plan calls for a heavy industrial development to locate just northwest of Bottoms Bridge along Route 613. This site is seen as a prime location for industrial development because of its close proximity to the interstate and the railroad system. The likelihood that water and sewer service will be made available to the Bottoms Bridge area is also a significant factor in choosing the site.

The New Kent Airport is located along Route 676 behind the Five Lakes Subdivision. The plan designates this area for planned commercial/industrial development. The plan anticipates that the airport will play an significant role in the regional and local aviation programs in the future. Therefore, it is important to protect the airport and approach zones from incompatible uses that would threaten future airport use. The development of residential

and institutional uses on adjacent lands should be prohibited in the future; agricultural uses are most in keeping with the protection of the airport and adjoining land.

The Industrial Park will continue to operate with expansion of the park anticipated in the future. The Industrial Park is located adjacent to the County airport. The plan designates this area for planned commercial/industrial development.

The final area to be discussed is the Talleyville interchange. The plan calls for planned commercial/industrial development to occupy the land adjacent to the I-64 interchange and mixed use development to occur along Route 106. The 106 corridor, from the Benjamin Harrison bridge in Charles City County to Talleyville in New Kent County, has been upgraded to industrial specifications and should be capable of handling additional traffic.

Providence Forge

Providence Forge is the largest community in the County. This area is essentially developed and very well-suited to be a village. Providence Forge serves as the main commercial area in the County and acts as a local employment center for County residents. A number of community facilities, such as fire and rescue services and the library, are located in the area.

The plan has designated two planned/commercial areas along Route 60 near Providence Forge. The areas have direct access to highway and rail service. There are a few light industrial uses already located in these areas.

Residential development is located north of Providence Forge. Residential growth is expected to continue in the future. The plan anticipates medium density residential development in the area abutting the village along Route 155.

Route 155 Interstate Interchange

A planned/commercial industrial area is designated at the Route 155 Providence Forge/New Kent interstate interchange. Mixed development is proposed for the area south of the interstate west of Route 155. The land is presently undeveloped, but the County anticipates development of this area in the near future. Several proposals have already been suggested concerning the development of this property.

New Kent Courthouse

Development within the New Kent Courthouse area is very well-defined. Nearly all of the governmental offices are located in the Courthouse area as well as 3 out of the 4 educational facilities are located here. This area is designated as a village and will

continue to function as the primary center of governmental activity for the County.

In the future, the County hopes to develop commercial and residential development at the New Kent Courthouse village. Recently, a residential subdivision located immediately east of the Courthouse area off Route 249. The plan calls for low density residential development in this area.

Route 33

Future development along Route 33 is anticipated to be more intensive than in other parts of the County. Route 33 is a four-lane highway and has the capacity to handle a greater amount of traffic. However, in the next twenty years it is unlikely that development will occur along the entire stretch of the corridor nor is it desired. Therefore, the plan proposes three sites along the corridor for commercial and industrial development. Planned commercial/industrial development is proposed at the Route 33/I-64 interchange and outside of Eltham. Heavy industrial development is located at Angelview Church at Route 30. It may be possible for the heavy industrial site and the County prison (located at Angelview Church) to share a water and sewer system.

Eltham

Eltham is designated as a village. A mixture of commercial and residential development exists along the Route 33 corridor. This village will serve those residents in Eltham as well as those residents who live in the northeastern and eastern sections of the County. The plan calls for medium density residential development in Plum Point and low density residential development surrounding the village.

Barhamsville

Barhamsville, located in eastern section of New Kent County, has experienced limited development. The area does have a small commercial cluster but still contains large amounts of agricultural land. However, with the increasing development activities that are occurring in James City County, it is expected that growth will spill over into Barhamsville within the next twenty years. Taking this into consideration, a village is proposed for the area.

Southeastern New Kent County

Residential development is the primary land use in the southeastern portion of the County. A number of residential subdivisions have developed along the Chickahominy River. These areas are designated medium density residential. Medium density residential development is also anticipated to occur along Route 60 west of Lanexa within the next twenty years. The plan calls for low density residential development in the area bordered by

the railroad and the Chichahominy River to the south, Route 649 to the northwest, and Route 627 to the east.

Lanexa is expected to serve the southeastern portion of New Kent County. As residential growth increases in this area, Lanexa will expand in size. Therefore, the plan designates Lanexa as a village. Highway improvements to Route 627 connecting the southeastern portion of the County to Slatersville and New Kent Courthouse as well as development pressure coming from the Williamsburg area along Route 60 should also play an important role in the development of Lanexa.

FUTURE LAND USE CATEGORIES

The following land use categories have been used in developing the future land use plan. Although these categories are general in nature, these designations will provide appropriate guidance for the development of the more specific zoning regulations and zoning district locations and boundaries which will actually implement the plan.

Conservation

Intent: To ensure the protection of environmentally sensitive lands from inappropriate development.

This category includes the vast amount of lands within the County which are valuable to the environmental quality of the County and contribute positively to the County's economy. These land features are irreplaceable, and therefore, should not be disturbed. Designation of these lands encompasses those areas which may be precluded from development under current law (such as wetlands regulations and Chesapeake Bay Preservation Act regulations), lands in which development may cause significant environmental impacts, and lands which may present significant obstacles or hazards to development.

Specifically, lands within this category include tidal shorelines, tidal and nontidal wetlands, the 100 year floodplain, and slopes in excess of 15 percent.

Agricultural

Intent: To protect agricultural land, forest land, and open space from the premature conversion to more intense land uses in order to preserve the rural character of the County.

This category includes areas presently containing farms, forests, and scattered residential development. These land uses are indicative of the types of uses found within rural-type development. Because anticipated development of these rural areas is of a lower density, it is unlikely that

construction of public sewer and water lines will be economically feasible. Development that is permitted shall develop in a manner that reduces the overall impact of the development on the rural nature of these areas. The clustering of residences will be permitted when done in a manner that harmonizes with the rural nature of the land and provided that the overall density does not exceed 1 unit per 5 acres.

Potential types of activities include agriculture, forestry, recreational areas, large lot and cluster residential development, mobile home subdivisions, camps, campgrounds, nature trails, and natural resource related industries.

Low Density Residential

Intent: To provide areas for residential development at low concentrations which will harmonize with existing development.

This category includes existing low density residential areas and areas where similar residential development is expected to occur. If residential development in these areas is to occur, it will depend on patterns of existing development and the physical attributes of the property. Proper site planning will ensure that the necessary buffering and separation of uses is accomplished as well as serve to maintain the rural character of the County. Overall densities of 1 to 2 units per acre are permitted depending on the availability of public water and sewer service. Development should be planned to permit the installation of public utilities where they do not currently exist.

Potential uses include single family homes, duplexes, cluster housing, mobile home subdivisions, community facilities and recreational areas.

Medium Density Residential

Intent: To provide areas for higher density residential development which will offer a mixture of housing types including multi-family residential development.

This category encompasses those areas which because of their location can accommodate residential development at a maximum density from 2 to 6 units per acre. A variety of housing types will be provided such as condominiums and townhouses. The density of these areas will place heavy demands on public facilities and services. Community utilities will be necessary to accommodate development in some of the more densely populated areas. Sites should be located at or near intersections of major roads and be accessible to commercial centers, employment centers and community facilities. Sites

should also be properly oriented and buffered to be compatible with surrounding development.

Potential uses include cluster housing, apartments, townhouses, condominiums, community facilities and recreational areas.

Mixed Development

Intent: To reserve large amounts of land for a variety of land uses.

This category encompasses lands which are presently undeveloped but are expected to develop over the next several years. Development trends, the existing development pattern and the development potential of the area are significant factors in choosing locations for mixed development. A variety of land uses will be allowed in these areas including a range of residential types. Proper site planning will ensure that the necessary buffering and separation of uses is accomplished. Clustering of uses should be encouraged in order to retain open space. Densities in these areas will vary according to land use type, but the overall density in mixed development areas requires the installation of public utilities. These areas should also be in close proximity to existing population centers and/or have access to major transportation arteries.

Potential uses include single family homes, duplexes, cluster housing, apartments, townhouses, condominiums, commercial service uses, commercial recreation uses, warehousing, light industrial uses, recreational areas, and community facilities.

Village

Intent: To provide areas of compact development to function as cohesive community centers, serving as primary commercial retail areas and offering a range of residential types and employment opportunities.

This category includes areas which are designated to function as population centers. Each village serves as an semi-independent community consisting of a variety of residential types, commercial activities, and related community facilities. Villages are located so as to serve surrounding neighborhood areas and take maximum advantage of the transportation network. Clearly defined boundaries establish the borders of the village and help protect the integrity of the rural landscape. Development within the villages will be compact and provide for the installation of public utilities. A density of 2 to 10 units per acre will be permitted for residential development within these areas. Site planning and

design will ensure that development within the villages is unified and harmonious in nature.

Potential uses include single family homes, duplexes, cluster housing, apartments, townhouses, condominiums, neighborhood commercial and general commercial uses, office, recreational facilities and areas, and community facilities.

Planned Commercial/Industrial

Intent: To provide prime locations for commercial and industrial development.

This category includes areas which have the locational characteristics to meet the demands commercial and industrial uses require. Uses within this category may be land intensive, requiring large tracts or amounts of land. The areas will also require convenient transportation links and access to regional thoroughfares or rail service as well as demand public utilities. Site planning and site design will be necessary to assure that these areas pose no threat to the environment, traffic circulation, or surrounding residential communities. Clustering and the use of business and industrial parks will be encouraged as a means to concentrate development. Heavy industrial activities which generate dust, noise, fumes, or other potential nuisances will not be permitted in these areas.

Potential uses include distribution centers, retail outlet centers, office parks, warehousing and wholesaling, light manufacturing, fabrication, assembly of products, bulk storage and bulk sales activities.

Heavy Industrial

Intent: To provide locations suitable for heavy industrial activity.

This category provides opportunities for large industrial sites whose operations or characteristics may necessarily involve significant levels of odor, noise, vibration, traffic and other conditions which may adversely impact surrounding land uses. Desirable features of these locations would include access to interstates and primary highways, access to rail and air service, public utilities, and favorable site conditions, such as soils and topography. Site planning and buffering from adjoining land uses will be utilized to lessen potential impacts on the surrounding area.

Potential uses include heavy manufacturing, fabrication, commercial processing, agricultural processing, mining and excavation.

Water-Dependent Commercial

Intent: To provide locations for those activities that must locate and are desirable to be located on the shorelines of streams and rivers.

This designation is intended to recognize and continue to provide opportunities for a variety of activities oriented toward and dependent on a location possessing access to water. Special site design standards shall be incorporated into the development of these activities due to their location adjacent to water.

Potential uses include marinas and other boat launching facilities and boat building and repair facilities.

LAND USE AND DEVELOPMENT POLICIES

Based on the goals and objectives and the development strategies, the County has adopted the following land use and development policies. These policies will be used to make land use decisions about the development of the County, such as rezoning and the subdivision of land.

Overall Development

1. Encourage continued agricultural, forestal, recreational and low density residential uses in areas outside villages and other designated sites/areas.
2. Encourage the compatible mixture of housing, retail and service establishments, community facilities and intensive development in villages and other designated sites/areas.
3. Require site planning and County review for all types of development, except detached single family housing on individual lots.
4. Maintain liaison with adjacent governments to promote compatible development along border areas.

Environmental Protection

1. Restrict development in environmentally sensitive areas, particularly wetlands, slopes steeper than 15%, tributary streams and soils with severe limitations for development, such as on-site sewage systems.
2. Require site development that is sensitive to the environmental constraints of the site and adjoining property.
3. Require strict compliance with the erosion and sediment control ordinance as a means to minimize erosion.
4. Require land uses to incorporate buffer strips and other best management practices to help reduce erosion and protect ground and surface waters from pollution.
5. Cooperate with public and private bodies to preserve significant plants and wildlife, especially endangered species.
6. Consider the potential environmental impacts when reviewing site plans and subdivision proposals.

7. Promote the preservation of forest lands for the control of erosion, the protection of ground and surface water, the maintenance of wildlife habitat, oxygen production and for the aesthetic and rural character they provide.
8. Review and modify where necessary existing development regulations as a means to protect environmentally sensitive lands.

Residential Development

1. Concentrate residential development in current and planned growth areas within the County.
2. Permit a variety of housing opportunities, including cluster housing, mobile home subdivisions, townhouses and condominiums provided they are compatible with the availability of community facilities, services, utilities, and the transportation network.
3. Permit average residential densities in agricultural areas to a maximum overall density of 1 unit per 5 acres.
4. Permit a maximum overall density of 1-2 units per acre within low density residential areas.
5. Permit a maximum overall density of 2-6 units per acre within medium density residential areas.
6. Permit a maximum overall density of 2-10 units per acre within villages.
7. Permit mobile home subdivisions or parks in designated areas and require appropriate skirting and that the units be tied down.
8. Locate housing types, such as apartments, condominiums and townhouses in villages and other designated areas as buffers between commercial and low density residential areas or within planned residential developments.
9. Require residential development to provide necessary internal streets in order to lessen the impact of traffic on existing roads and streets, particularly with regard to traffic safety.

Commercial Development

1. Promote the clustering of commercial activities in villages and in planned commercial centers.
2. Require site plan review of all commercial developments to insure that adequate allowances are made for off-

street parking and loading areas, internal circulation and that direct access to major roads is controlled through the use of frontage roads, wide lots and/or shared access points.

3. Discourage development directly on shorelines that is more appropriate to other locations and does not need direct access to water.
5. Require any proposed development that will locate on a river or stream shore to demonstrate the necessity of locating on a shoreline to the project and provide an analysis of potential negative impacts on the environment and water quality and actions that will be taken to mitigate these potential impacts.

Industrial Development

1. Promote the location of industrial land uses in planned industrial parks.
2. Locate industrial sites on stable level or gently rolling terrain with access to necessary utilities and major transportation facilities.
3. Require the use of man-made and natural buffers to adequately separate development from incompatible uses.
4. Prohibit industrial development in conservation and agricultural areas.

Transportation

1. Work with the Department of Transportation to develop a coordinated network of major and minor roads based on the Comprehensive Land Use Plan.
2. Encourage bicycle and walking paths within villages as a means to eliminate unnecessary automobile traffic.
3. Require necessary off-street parking and loading facilities.
4. Limit and, where possible, prohibit direct access from residential, commercial and industrial properties to major roads.
5. Restrict development in the immediate area of the airport to low rise industrial uses.
6. Limit development within the airport approach zones to non-residential uses.

7. Investigate methods to fund needed improvements to airport facilities.

Agricultural and Forestal Development

1. Encourage the retention of prime agricultural land through the use of agricultural/forestal districts.
2. Limit development in agricultural areas to agriculture, forestry, single family residential development, community facilities, and recreational uses.
3. Encourage flexible techniques such as lot size averaging to permit clustering of residential development as a means of maintaining very low density overall while preserving the natural features and the rural character of the land.
4. Discourage the extension of public utilities into agricultural lands except to address eminent threats to public health.
5. Encourage the use of best management practices, reforestation programs and other land management programs as a means to protect water quality and limit soil erosion.

Historical and Archaeological Preservation

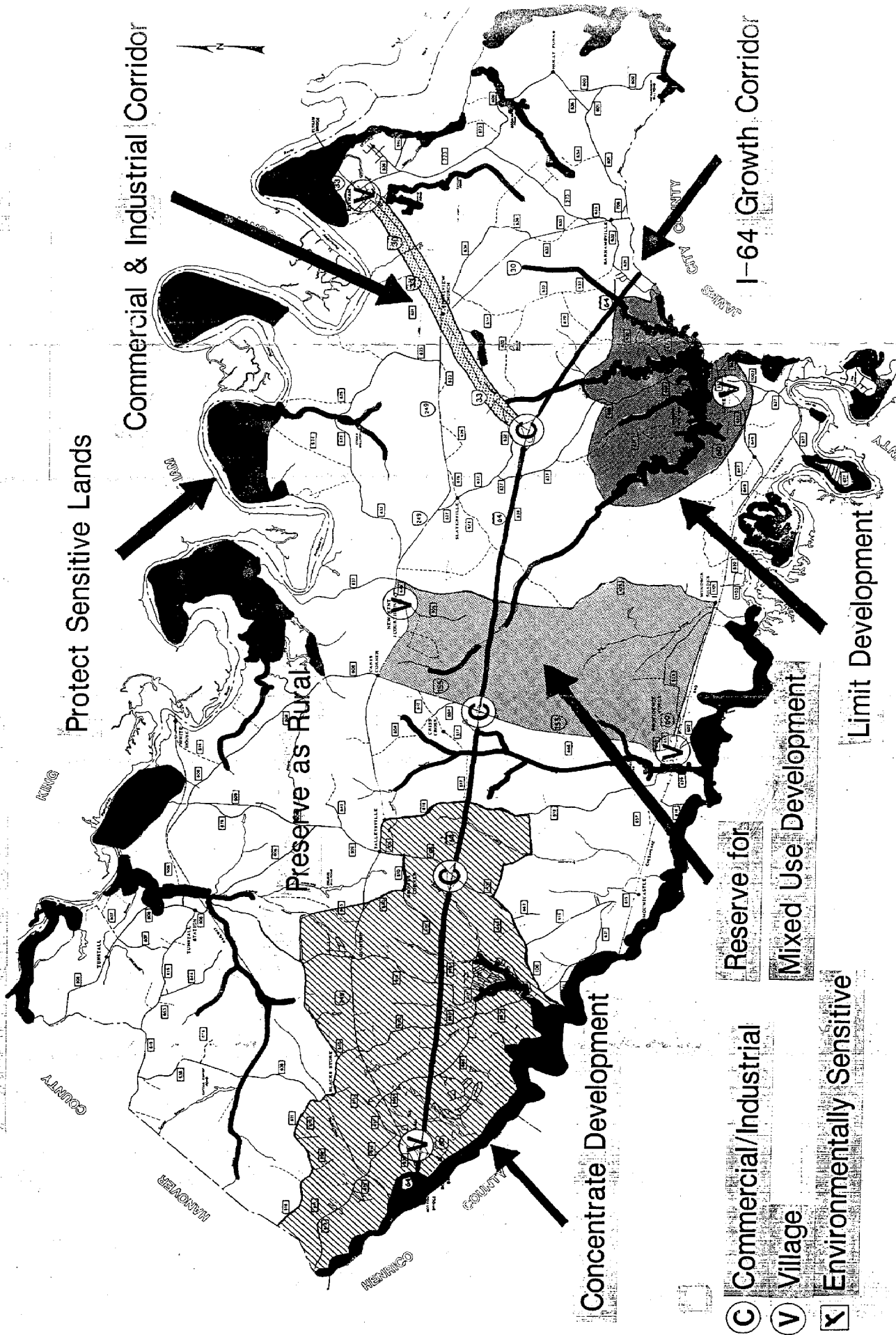
1. Encourage a variety of activities to aid in the protection and preservation of historical and archaeological resources within the County.
2. Coordinate with the Department of Historic Landmarks to increase public awareness of historic and archeological resources within the County.

Community Facilities

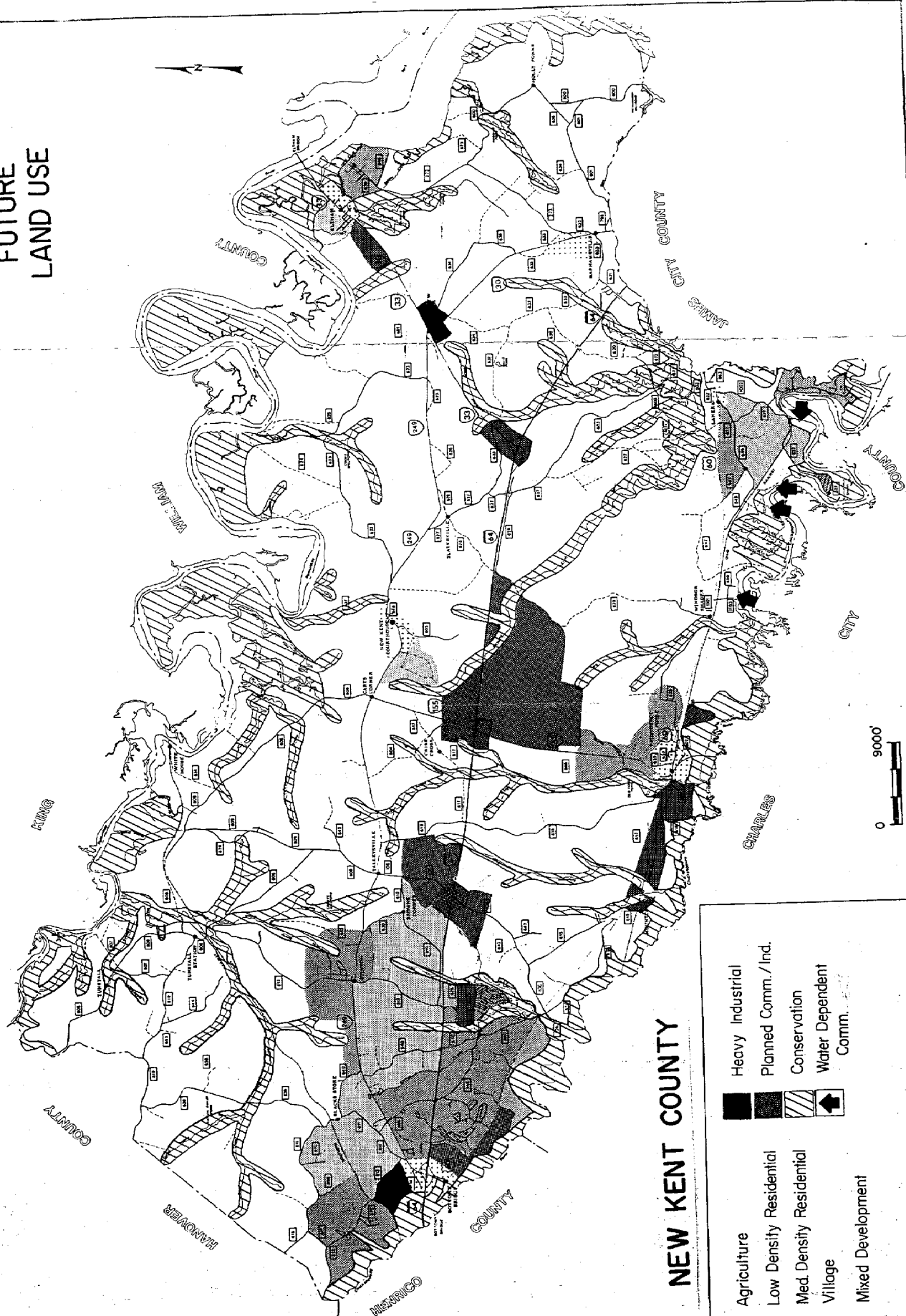
1. Encourage the concentration of development at densities that will permit the installation of needed public water and sewer facilities.
2. Encourage the installation of community facilities and utilities in villages.
3. Obtain a sufficient amount of land necessary for public purposes in advance of actual need in order to preclude other development and prevent costly acquisition at a later date.
4. Develop a community facilities and utilities plan.

NEW KENT GROWTH MANAGEMENT MAP

Map 13



FUTURE LAND USE



IMPLEMENTATION PROGRAM

Once adopted, the comprehensive land use plan becomes the basic framework for guiding public and private land development activity. Other actions are necessary, however, to assist in realizing the goals set forth in the plan.

Specific regulations are needed to turn the objectives and strategies of the land use plan into development requirements. The County zoning ordinance and map, the subdivision ordinance, and the erosion and sediment control ordinance are examples of existing land development regulations the County has in place that can aid in the implementation of the Plan.

In addition to a land use plan, other, more specialized plans are needed to properly prepare for the future. Specialized plans could cover such issues as water and sewer, community facilities and recreational needs. These plans project the future demand for services and facilities such as water treatment plants, community buildings and parks. These plans also include suggested locations for such services and facilities based on engineering and other factors. These specialized plans should be developed consistent with the objectives and strategies of the land use plan.

A third key element to a truly comprehensive plan is a capital improvements program. Such a program provides a plan of action for the construction, purchase and/or replacement of major capital equipment and facilities within a specified time frame, usually five years. Examples of capital equipment and facilities are county vehicles, water treatment plants and schools.

The purpose of this section is to discuss changes that may be necessary to existing regulations based on the land use plan. Also included are recommendations concerning additional plans and programs needed to assist with the implementation of this plan.

LAND DEVELOPMENT REGULATIONS

The County is fortunate to have adopted a comprehensive set of land development regulations. These include a zoning ordinance, a subdivision ordinance and erosion and sediment control regulations. The County also has a Wetlands Board to monitor development in these special areas.

The zoning and subdivision ordinances were last updated in a comprehensive manner in 1985. Since then amendments have been made as necessary. Following is a brief description of each ordinance and some suggested changes to assist with implementation of the comprehensive plan.

Zoning Ordinance

The zoning ordinance regulates the use of land in the County. The ordinance divides the County into several zoning districts and establishes the types of land uses permitted within each district. The zoning map shows how various portions of the County are zoned.

The zoning ordinance also establishes standards that must be used in creating a lot in each zoning district or constructing a building on a lot. The standards include minimum lot width in each zoning district and the maximum building size and height on a lot.

The County zoning ordinance is very up-to-date as far as measures for land use control and site development requirements. The ordinance provides for limited development within environmentally sensitive areas, provides for several zoning districts as a means to separate incompatible land uses and includes several tables to aid the user.

There are some improvements that can be made to the ordinance, however. Following is a list of items that should be considered for revision.

Conditional Zoning

The zoning ordinance permits the use of conditional zoning. This allows a land developer to proffer certain conditions to the county to address the impacts of the proposed development on the community.

In 1989 the General Assembly modified provisions governing conditional zoning. Specifically, these changes permit certain counties, including New Kent, to accept proffers that include the dedication of real estate and the payment of cash. These particular proffers may be accepted provided the facilities for which land is dedicated or cash is offered are included in the localities capital improvement program. The County needs to amend the existing conditional zoning language to accept the dedication of land or cash. The County must also adopt a capital improvement program to take advantage of this new tool.

Planned Unit Development

Planned unit development regulations can be a significant tool in meeting the County's development objectives. The zoning ordinance permits the use of planned unit developments in the R-2, R-2a, R-3 and B-1 Districts. The ordinance does not contain standards, however, concerning the density of development permitted, open space requirements or other development standards. The ordinance is also inconsistent in that it states that residential development shall be the

primary use in planned unit development, but permits such development in General Business District. The County Staff has recently prepared a proposed Planned Unit Development Ordinance which is now under review by the Planning Commission.

Conditional Use Permit

The ordinance makes numerous references to uses that are allowed by conditional use permit. The ordinance also sets criteria that must be met by certain conditional uses if they are permitted. Little guidance is given, however, as to what criteria should be used to evaluate a specific request for a conditional use and the potential impacts on surrounding property. Specific guidelines for reviewing and approving conditional use permits are needed.

Airport Zoning

The County has adopted an excellent set of restrictions to protect the New Kent Airport. Unfortunately these restrictions have not been incorporated into the Zoning Map. Building height restrictions and aircraft approach zones need to be established on the Zoning Map or as an overlay to the map. This is imperative to preserve the airport as a viable aviation facility, not only for the County but for the region.

Zoning Map

Once a new land use plan is adopted, the County may need to make minor adjustments to the zoning map to conform to the plan. When amending the zoning map, it must be remembered that the future land use map is a generalized map; boundaries shown on the map are not based on property lines. The process of amending the zoning map must take into account actual property lines as well as streams, roadways and other natural or manmade features. The Board of Supervisors, with the aid of the Planning Commission, will make the final determination of zoning boundaries based on their interpretation of the goals, objectives and policies on the land use plan.

Subdivision Ordinance

The subdivision ordinance governs the division of private property into parcels for sale or development. It establishes standards for the location of lots, blocks and streets within subdivided property and ensures that adequate provision is made for drainage, flood control and the provision of utilities.

The existing subdivision Ordinance in New Kent County is comprehensive and strong in its requirements for environmental, health, safety, and general welfare components. Article 4

specifically outlines adverse impacts which are unacceptable as a result of a subdivision. Conditions such as availability of groundwater, burden on the school system, unreasonable highway congestion, and burdens on environmental resources are addressed in this section. In addition, the County requires subdividers to submit an Environmental Impact Statement, which contains statements on existing characteristics and proposed impacts.

Overall, the ordinance appears to cover primary areas of concern. Two changes that should be investigated are:

1. Section 5.22, Street Names, should be revised to comply with the recommendations of the Regional Street Name Directory, managed by the Richmond Regional Planning District Commission.
2. Section 5.26, Bond, should be revised to add the provision of maintenance bonds, which would be held by the County until the State took over the maintenance of the subdivision street.

Chesapeake Bay Preservation Area Designation and Management

In 1988, the General Assembly adopted the Chesapeake Bay Preservation Act. The Act requires coastal counties to establish special regulations governing development on or adjacent to rivers and their tributaries. Specifically, these regulations cover tidal shorelines, tidal and non-tidal wetlands, floodplains, highly erodible and highly permeable land.

New Kent County is one of the jurisdictions covered by the Act. Final regulations setting out the designation and management requirements and establishing a timetable for local action were issued in 1989. The County has begun to designate these special areas and establish management practices governing development within them. During the next year changes to existing land development regulations will be needed. Specific actions will be taken once final guidelines are received from the State.

Erosion and Sediment Control Ordinance

The County adopted an Erosion and Sediment Control Ordinance in 1980. The purpose of this ordinance is to insure that measures are taken to control erosion sedimentation during and following land development. This ordinance requires that any person involved in any land disturbing activity must submit to the county a plan for controlling erosion and sediment due to the land development. A complete review of this ordinance based on the recent Chesapeake Bay Preservation Act is needed.

ADDITIONAL PLANNING NEEDS

As noted previously, additional development plans and programs are necessary in order to fully implement the goals of this Plan. Following is a list of planning and programming needs of the County.

Water and Sewer Plan

The provision of water and sewer service to County residents has been and continues to be a high priority item. These improvements are needed to insure that all residents have access to a source of safe, reliable drinking water. They are also needed to insure that ground and surface water resources in the County are not polluted due to poorly maintained septic tanks.

An effort is now underway to hire a consultant to assist the County in planning for county-wide water and sewer services. This study, anticipated to begin in the late spring of 1990, will provide information on the best approach and locations and potential cost for providing water and sewer service to County residents.

Survey of Historic Structures

As mentioned previously, the Virginia Department of Historic Resources has been conducting a survey of potential historic sites in the County. As soon as this survey is completed, the County, working with local property owners, will be able to determine what action is appropriate regarding the recognition of these sites.

Transportation Plan

While the Department of Transportation is in charge of highway planning in the County, an overall transportation plan will aid the County in meeting the complete transportation needs of existing and future residents. A transportation plan prepared in conjunction with the future land use plan shows where road improvements are or will be needed. This aids the County in discussion with the Department of Transportation regarding future highway improvements. A transportation plan will also allow developers to offer to construct additional roadways as part of new development, reducing the existing level of reliance on state funding for roads.

Community Facilities Plan

As the County grows, the need to plan for new schools, community centers and other community facilities will become more important. By establishing a mechanism for planning for these facilities now, the County will be able to stay abreast of the needs of residents.

Parks and Recreation Plan

As the County grows, more parks and recreational facilities will be needed. Some of these will be provided by the County; some may be provided by private developers. A parks and recreation plan will help the County plan future improvements and assist in negotiating with developers interested in constructing recreation and park facilities.

CAPITAL IMPROVEMENT PROGRAM

As stated previously, a capital improvement program is an adopted plan for the purchase of major capital items over a certain time frame, usually five (5) years. These capital improvements are arranged by priority and include estimated costs and potential sources of funding.

The development of a capital improvement program is important because it allows the County to plan ahead for the purchase or construction of major new equipment or facilities. For instance, land for new parks can be purchased before development drives up prices. A capital improvement program also allows the County to be in a better position to negotiate with land developers for the dedication of land or construction of new facilities needed to accommodate new development.

Without a capital improvement plan, the County is forced to respond to requests for major purchases on a case by case basis or do without. Also, a capital improvement program is necessary for the County to be able to take advantage of the provisions of conditional zoning. According to state law, a local government must have an adopted capital improvement program to accept development proffers under the conditional zoning provisions. For these reasons, the development of a capital improvement program is vital to the future of New Kent County.

CONCLUSION

This Plan set outs a variety of actions necessary for the County to move into the next century while maintaining those features most treasured. Following is a summary of the actions that will equip the County with the tools necessary for the future.

1. Adopt this Comprehensive Land Use Plan.
- 2 . Designate Chesapeake Bay Preservation Areas and adopt necessary policy and ordinance changes to protect these Preservation Areas.
3. Prepare and adopt a Capital Improvement Program

4. Prepare and adopt a Water and Sewer Plan
5. Incorporate height and development limitations applicable to the airport into the Zoning Map.
6. Amend the Erosion and Sediment Control Ordinance as needed.
7. Survey potential historic sites
8. Prepare and adopt a Transportation Plan
9. Prepare and adopt a Community Facilities Plan
10. Prepare and adopt a Recreation Plan

APPENDIX

FUTURE LAND USE CALCULATIONS

Following is a discussion of the methodology used to prepare the land use requirements found in Table 12.

RESIDENTIAL

Residential land requirements are based on assumptions concerning future development patterns. One assumption is that single family homes will house most residents, but some multi-family development will occur. Based on this assumption and a projected future land use density of 1 unit per acre, 3545 acres is needed for single family development. Multi-family development is expected to account for 10 percent of the residential development between now and 2010. Based on an expected density of 10 units per acre, 39 acres of multi-family housing is needed.

COMMERCIAL

Currently, the County has a small commercial base. Yet, calculations show that there is .046 acres of commercial development per person which is higher than the average of commercial development per person (.020) for surrounding counties. The County will require 869 acres of additional commercial property to meet projected population needs.

INDUSTRIAL

Required industrial land needs are always difficult to estimate. Several steps had to be taken in order to develop a projection. First, the average number of acres per manufacturing employee was calculated using the number of acres occupied by the by manufacturing uses in 1989 (112) and the number of manufacturing employees reported by the Virginia Employment Commission in 1988 (203). This factor was then used to develop the land necessary to support the number of manufacturing employees projected in 2010 (175). Acres required for more land intensive industrial jobs were calculated in the same manner.

GOVERNMENT

Land for governmental activities is expected to stay the same over the next several years. No major projects have been scheduled that will require additional land; therefore, the land use requirements allocate no increase in acreage for public services.

TRANSPORTATION

Land use requirements for transportation are based on anticipated road construction related to new development. For planning purposes a figure equal to 20 percent of new residential, commercial and industrial development was used. Based on this percentage, 918 acres of additional land will be needed to meet transportation needs.

