COMPREHENSIVE PLAN

Isle of Wight County

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Prepared for

Isle of Wight County

Department of Community Development

Prepared by

Redman/Johnston Associates, Ltd.

er, 1989

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Table of Contents

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TABLE OF CONTENTS

Page

INTRODUCTION

Definitions and Purposes 1
Legal Basis for Comprehensive Planning 2
Past Comprehensive Planning Efforts. 2
Process for Plan Development and Adoption 3
Organization of the Document 4

CHAPTER ONE: GROWTH AND DEVELOPMENT TRENDS

Introduction 1-1
Regional Development Trends 1-1
Population 1-4
Population Projections. 1-7
Housing 1-12
Income. 1-12
Employment 1-16
Existing Land Use and Development Patterns 1-18
Development Trends. 1-22
Summary. 1-23

CHAPTER TWO: GROWTH MANAGEMENT AND LAND USE

Introduction 2-1
Growth Management Issues 2-2
Growth Management Goals and Objectives 2-3
Growth Management Concept 2-4
Development Service Districts 2-5
Northeast Development Service District 2-7
Central Development Service District 2-7
Southern Development Service District. 2-7
Planning For Development Service District. 2-8
Activity Centers and Incorporated Towns. 2-9
Benns Church Activity Center. 2-10
Bartlett Activity Center. 2-10
Carrsville Activity Center. 2-11
Jamestown Activity Center 2-11
Towns of Smithfield and Windsor 2-12
Planning for Activity Centers. 2-12
Planned Unit Development Districts 2-12
Rural/Agricultural Conservation District 2-14
Residential Density. 2-15
Sliding Scale Approach. 2-16
Density Bonus Approach 2-16
Community Centers 2-19
Rescue 2-21

Battery Park 2-21
Zuni 2-22
Walters 2-22
Isle of Wight Courthouse 2-23
Rushmere 2-23
Orbit 2-23
Central Hill 2-24
Wills Corner 2-24
Neighborhood Conservation Districts 2-24
Highway Corridor Districts 2-25
Resource Conservation Districts 2-27
Growth Management Plan Concept: Summary 2-29

CHAPTER THREE: RURAL CHARACTER AND AGRICULTURAL PRESERVATION

Introduction 3-1
Farm Trends and Information 3-1
The Agriculture Industry 3-3
Timber and Forestland 3-5
Existing County Agricultural Preservation Efforts 3-6
Issues 3-8
Goals and Objectives 3-8
Implementation Recommendations 3-9
Summary 3-10

CHAPTER FOUR: ENVIRONMENTAL QUALITY

Introduction 4-1
Background Information & Enviromental Quality Issues 4-1
Topography 4-3
Soils 4-3
Floodplain 4-3
Watersheds and Surface Water 4-4
Groundwater 4-5
Wetlands Issues 4-6
Tidal Marshes 4-8
Non-tidal Wetlands: Swamps and Pocosins 4-9
Forest Resources 4-9
Wildlife 4-10
The Chesapeake Bay Preservation Act 4-10
Purpose 4-11
Goals 4-11
Local Program Elements 4-12
Chesapeake Bay Preservation Area Designation Criteria 4-13
Resource Protection Areas 4-13
Resouorce Management Areas 4-13
Intensely Developed Areas 4-14
Land Use and Development Performance Criteria 4-15
General Development Performance Criteria 4-15
Performance Criteria for Resource Portection Areas 4-18

Administrative Waivers and Exemptions 4-20
Exceptions To The Criteria 4-21
Local Program Development 4-22
Environmental Quality Goals and Objectives 4-22
Implementation Recommendations 4-24
Summary 4-26

CHAPTER FIVE: TRANSPORTATION 5-1

Introduction 5-1
Background Information 5-2
Functional Classification of Highways 5-2
Traffic Volumes and Trends 5-4
Capacity Analysis 5-6
Safety 5-9
Commuter Patterns 5-9
Highway Improvements 5-12
Other Transportation Facilities and Services 5-12
Issues 5-13
Goals and Objectives 5-14
Implementation Recommendations 5-15

CHAPTER SIX: COMMUNITY FACILITIES AND SERVICES

Introduction 6-1
Background/Issue Identification 6-1
Sewer Facilities 6-1
Background Information 6-1
Issues 6-4
Water Facilities 6-5
Background Information 6-5
Issues 6-8
Schools and Educational Resources 6-8
Issues 6-9
Public Safety 6-12
Background Information 6-12
Issues 6-12
Health Care 6-15
Background Information 6-15
Issues 6-15
Public Libraries 6-16
Background Information 6-16
Issues 6-16
Solid Waste Disposal 6-16
Background Information 6-16
Issues 6-17
Administrative Facilities 6-18
Background Information 6-18
Issues 6-18
Goals and Objectives 6-19

Implementation Recommendations 6-19
Development Service Districts 6-20
Capital Programming 6-20
Voluntary Proffers 6-20
Fiscal Impact Analysis 6-20
Adequate Public Facilities Standards 6-21
Special Taxing Districts 6-22

CHAPTER SEVEN: HOUSING AND COMMUNITY DEVELOPMENT

Introduction 7-1
Background Information 7-1
Issues 7-3
Affordable Housing 7-3
Housing Condition 7-7
Housing Availability 7-8
Goals and Objectives 7-11
Implementation 7-12
Summary 7-18

CHAPTER EIGHT: PARKS, RECREATION AND OPEN SPACE

Introduction 8-1
Background Information 8-1
Issues 8-5
Goals and Objectives 8-9
Implementation Recommendations 8-10
Summary 8-13

CHAPTER NINE: ECONOMIC DEVELOPMENT

Introduction 9-1
Recent County Economic Development Initiatives 9-4
The Local Economy 9-4
Goals and Objectives 9-7
Implementation Recommendations 9-9
Summary 9-14

CHAPTER TEN: HISTORIC AND CULTURAL PRESERVATION

Introduction 10-1
Background Information 10-1
Issues 10-4
Goals and Objectives 10-4
Implementation Recommendations 10-5
Summary 10-7

CHAPTER ELEVEN: DESIGN 11-1

Introduction 11-1
The Rural Landscape 11-1
Community Centers 11-3
Highway Corridors and Scenic Roadways 11-5
Development Appearance Standards 11-6
Relationship of Buildings to Site 11-7
Relationship of Building and Site to Adjoining Area 11-7
Landscape and Site Treatment 11-8
Building Design 11-9
Signs 11-10
Maintenance -- Planning and Design Factors 11-10
Summary 11-11

CHAPTER TWELVE: IMPLEMENTATION

Chapter 2: Growth Management and Land Use 12-1
Chapter 3: Rural Character and Agricultural Preservation 12-2
Chapter 4: Environmental Quality 12-2
Chapter 5: Transportation 12-3
Chapter 6: Community Facilities and Services 12-5
Chapter 7: Housing and Community Development 12-5
Chapter 8: Parks, Recreation, and Open Space 12-6
Chapter 9: Economic Development 12-7
Chapter 10: Historic and Cultural Preservation 12-10
Chapter 11: Design 12-10

LIST OF MAPS

		Page
Map #1-1	Regional Location: Forces of Development Pressure	1-3
Map #1-2	1980 Population Distribution	1-8
Map #1-3	Existing Generalized Land Use	1-20
Map #3-1	Agricultural Districts	3-12
Map #4-1	Natural Development Constraints (Reserved)	4-2
Map #4-2	Watershed Boundary	4-27
Map #5-1	Existing Functional Road Classification	5-3
Map #5-2	Average Daily Traffic Volumes	5-5
Map #5-3	1987 Accident Rates for Primary Highways	5-11
Map #5-4	Highway Deficiencies	5-23
Map #5-5	Transportation Plan Map	5-24
Map #6-1	Sewer Service Areas	6-2
Map #6-2	Water Service Areas	6-6
Map #6-3	Existing Educational Facilities	6-11
Map #6-4	Public Safety Facilities	6-13
Map #8-1	Public Parks, Recreation and Open Space	8-4
Map #10-1	Historic Sites and Structures	10-3

LIST OF FIGURES

		Page
1-1	Regional Population Growth	1-2
1-2	Hampton Roads Non-Agricultural Civilian Employment	1-5
1-3	Population Growth 1960-1988	1-6
1-4	Population and Household Projections	1-9
1-5	Housing Growth	1-13
1-6	Housing Projections	1-14
1-7	Per Capita Income	1-15
1-8	Labor Force & Employment By Place of Residence	1-17
1-9	Residential Employment 1988	1-19
3-1	General Farm Statistics	3-2
3-2	Cropland 1982-1987	3-3
3-3	Commercial Agriculture 1987	3-4
5-1	Projected Traffic On Federal-Aid Highways for Selected Road Sections	5-6
5-2	Existing Level of Service (LOS) for Selected Intersections	5-7
5-3	High Accident Road Sections	5-8
5-4	Commuter Patterns	5-10
6-1	Elementary and Secondary Enrollment Thru March 31, 1989	6-9
6-2	Projected Pupil Enrollment	6-10
6-3	Projected Classroom Needs	6-10
7-1	Housing Status and Units Per Structure	7-2
7-2	Recent Development Trends - Residential Building Permits	7-3
7-3	Purchasing Power	7-4
7-4	Affordable Rental Housing	7-9
8-1	Recreation Facilities Summary	8-3
8-2	Park Standards	8-5
8-3	Projected Demands for Parks	8-6
8-4	Recreation Facilities Needs: 1990-2010	8-8

Introduction

INTRODUCTION

Isle of Wight County is one of the nation's oldest settlements dating back to 1619. The area was originally known as Worrosquoyackes, after the indian tribe living there at the time of the first english settlement. Throughout most of the County's past, growth has been gradual and slow and the County has remained predominantly rural in character. In recent decades development within Isle of Wight has been increasing in response to the development and expansion of the Hampton Roads region.

As the County grows and changes over the next 20 years, this Comprehensive Growth Management Plan (CGMP) will serve as a guide for making public and private decisions regarding the character of Isle of Wight's growth and development. The Plan is a culmination of a cooperative effort, pulling together the knowledge and skills of diverse citizens and staff. This Plan represents a future *vision* of Isle of Wight in 2010 along with recommendations for bringing that *vision* to fruition. The ideas of the Plan are a distillation of the community's many desires, tempered by what seems necessary, feasible, and reasonable. This Plan is not intended to be a *static document.* It should be reviewed and updated periodically to reflect new development trends, shifts in the economy, or changes in the community's goals and objectives.

Isle of Wight County is a special place with a unique character, culture and history that distinguishes this community from thousands of counties across America. This Comprehensive Plan particularly addresses the preservation and enhancement of these special qualities and that distinctive personality felt by the citizens who live and work here. This sense of uniqueness and pride of place are the guiding forces and strongest motivation for those who have contributed to the realization of this document.

Definitions and Purpose

The Comprehensive Plan (CP) is an official public document adopted by the County Planning Commission and Board of Supervisors. The Plan is a general, long-range, policy and implementation guide for decisions concerning the overall growth and development of the County.

The Plan is *comprehensive* because the elements cover the entire range of development and preservation issues which can be influenced significantly by the County Board of Supervisors and other governing authorities and agencies. The Plan is *general* because the recommendations are broad. The Plan is *long-range* because consideration is given to the problems and opportunities which may arise over the next twenty years. The Plan is *dynamic* because there can be amendments to adapt to new situations and meet new challenges.

Although adopted as an official public document, the Comprehensive Plan is not a development and preservation ordinance. This plan serves as a catalyst and guide to the establishment of, or revisions to, other ordinances or planning tools. These include the zoning and subdivision ordinances, the capital improvements program, and area plans for various sections of the County. The Growth Management Plan Map, included in this plan, serves to illustrate how and where the Plan's policies and recommendations will be carried out. This mapped information is general in nature and not appropriate for determining the suitability of specific sites for any specific use.

The *Overall Goal* of the Comprehensive Plan is to: "**Maintain and enhance the quality and character of Isle of Wight's natural and built environment by promoting the efficient use and conservation of the County's land and natural resources in order to effectively meet the social and economic needs of its present and future citizens.**"

Legal Basis for Comprehensive Planning

The preparation of a comprehensive plan is the legal responsibility of the County Planning Commission under Virginia Planning Enabling Legislation, Title 15.1, Article 4, of the Code of Virginia, 1950, as amended. Any ordinance pertaining to the use of land or the growth and development of the County should conform to the goals, objectives, and policies as they are presented in this Plan.

Past Comprehensive Planning Efforts

The Isle of Wight Planning Commission was established in 1966. Adoption of the first Comprehensive Plan occurred in 1969. The Plan was updated in 1977 and adopted again in 1979. In 1981 and 1985 work was begun to partially update the

Comprehensive Plan, but these revisions were never officially adopted. This Comprehensive Plan is therefore the fifth major effort to establish a set of goals and objectives for County growth and development.

Isle of Wight County adopted its first subdivision ordinance in 1964. Zoning was first adopted in 1970, subsequent to adoption of the first comprehensive plan. Since initial adoption of these development ordinances, amendments have been adopted incrementally over ensuing years.

A full-time Zoning Administrator was first appointed in Isle of Wight in 1970. The position of Planning Director was first established in 1974. Presently, planning and zoning is administered under the County Department of Community Development. The Department has two divisions and is overseen by the Assistant County Administrator. The Division of Planning and Zoning has a staff of six persons including a full-time County Planner, a Community Development Coordinator, a Community Development Technician, a Zoning Technician, and Secretary. The Division of Inspections has a staff of six persons including a Superintendent of Inspections, three Codes Inspectors, and two Permit Technicians.

Process for Plan Development and Adoption

Preparation of this Comprehensive Plan began in early 1989 with the hiring of the planning consulting firm of Redman/Johnston Associates, Ltd. In April of 1989 the Board of Supervisors appointed a 20-person Citizens' Plan Advisory Committee (PAC) to work with the consultants and County staff to formulate a new Plan. The PAC included the full Planning Commission and nine other County residents representing different geographical areas and interests throughout Isle of Wight.

Between April and July the PAC worked with the consultants and County staff to identify and discuss important planning issues and background information relevant to the Comprehensive Plan. Seven separate "Issue Papers" were prepared and discussed. These papers addressed the following important topics:

- Agriculture and Rural Character
- Natural Resource Protection
- Economic Development
- Housing and Community Development
- Community Facilities and Services
- Transportation
- Growth Management

Each "Issue Paper" contained important background information relating to the topic at hand and arrayed alternative implementation recommendations geared toward solutions to identified issues and concerns. The PAC evaluated specific implementation approaches and selected those which were best matched to County needs and objectives. The "Issue Papers" and other important planning background data are contained in a separate CP Technical Report which is available at the County Office of Community Development.

Following this exercise, the PAC conducted a workshop to develop a set of draft goals and objectives for the Plan which were compatible with selected implementation recommendations. In August of 1989 two public meetings were held, one in Smithfield and one in Windsor. At these meetings County residents commented on the draft goals and objectives established by the PAC. Following these meetings, the consultants and County Staff prepared and reviewed a preliminary draft CP. Next, the Plan Advisory Committee reviewed and revised the draft plan.

Organization of the Document

The Comprehensive Plan is organized into 12 chapters. These chapters deal with all aspects of land use in Isle of Wight County. Each chapter includes an assessment of existing conditions and provides goals, objectives and implementation recommendations pertaining to the subject of the chapter.

Following this introduction, Chapter One highlights past trends and future projections of population, housing and employment. Chapter Two presents the Growth Management Plan, which designates how, when, and where growth should occur. Chapter Three discusses rural character and agricultural preservation. Chapter Four presents approaches for maintaining environmental quality. Chapters Five and Six discuss transportation and community facilities and services, respectively. Chapter Seven addresses housing and community development. Chapter Eight discusses parks, recreation and open space needs. Chapter Nine deals with economic development. Chapters Ten and Eleven cover historic preservation and design. Plan Implementation is addressed in Chapter Twelve. This final section of the Plan details necessary actions, responsibilities and a schedule for implementing the goals and objectives of the Plan.

Chapter 1

Growth and Development Trends

Chapter One: GROWTH AND DEVELOPMENT TRENDS

Introduction

This chapter briefly reviews recent trends and projections in demographic, economic, and land use variables that characterize Isle of Wight County. This summary analysis of existing conditions and trends is intended to provide background information and rationale for other Plan chapters that follow. In order to effectively develop a plan or vision for the future of Isle of Wight it is important to understand where the County has been in the past, where it is now, and most importantly, where it is headed. Important trends that have implications for the future growth and development of the County are highlighted in this chapter.

Regional Development Trends

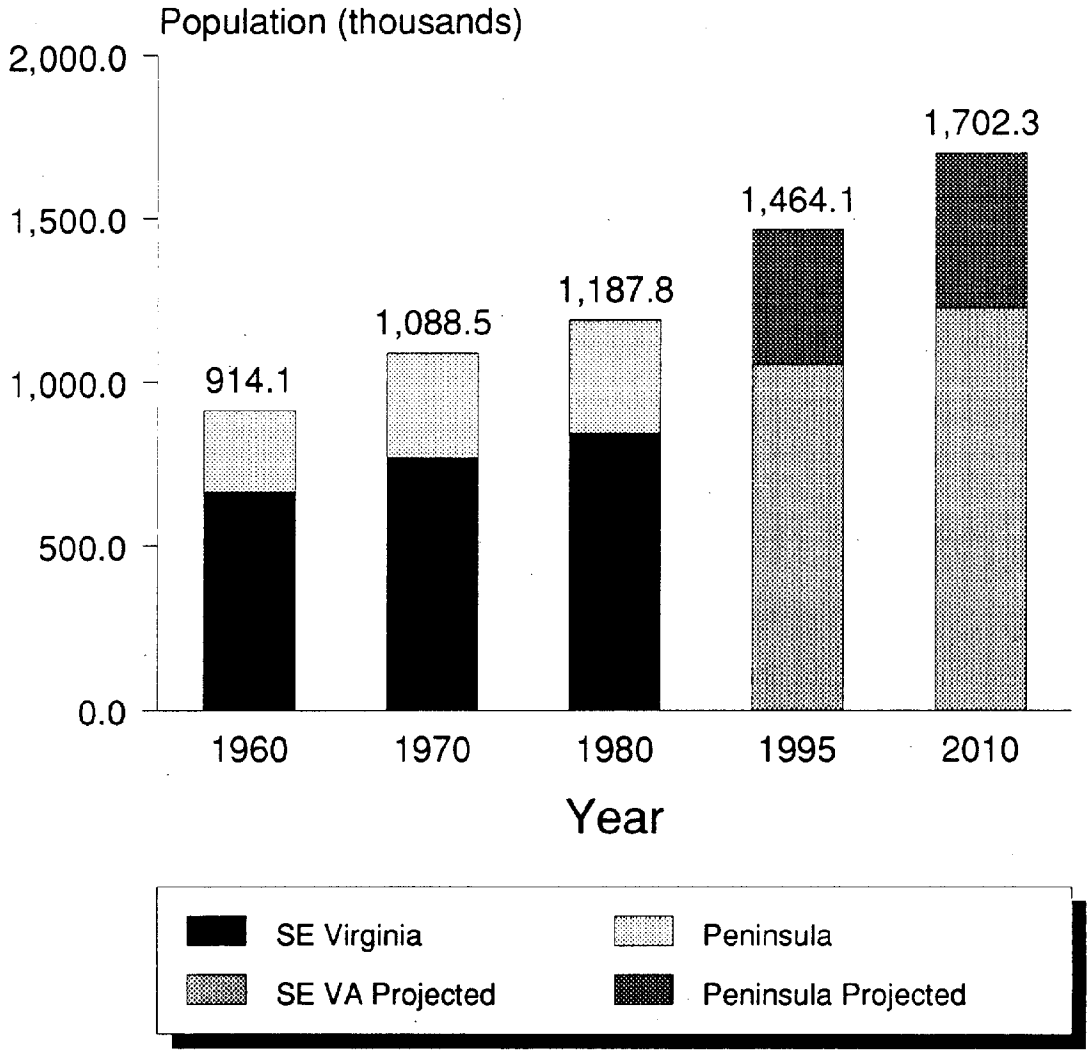
Planning for Isle of Wight County cannot be done in a vacuum. The County is part of the larger Hampton Roads region with an estimated 1986 population of 1,330,800 persons. The Hampton Roads Region is divided into two major sub-regions: Southeastern Virginia and the Peninsula. Southeastern Virginia includes Chesapeake, Norfolk, Portsmouth, Suffolk, Virginia Beach, Franklin, *Isle of Wight County*, and Southampton County; the Peninsula includes Hampton, James City County, Newport News, Poquoson, Williamsburg, and York County. In 1980 the Hampton Roads region comprised a total population of 1,187,000. Between 1980 and 1986 population for the entire region increased by 142,954 persons or 12 percent. In 1980 Isle of Wight County comprised 2.6 percent of the total Hampton Roads population.

The Southeastern Virginia Planning District Commission (SVPDC) projects that Hampton roads population will increase to 1,702,300 persons by 2010 (Figure 1-1).

Due to the County's strategic location, Isle of Wight will be the recipient of growth pressure from both the Southeastern Virginia and Peninsula sub-regions of Hampton Roads. Development pressures in Isle of Wight will first be felt from Newport News via the James River Bridge and from Suffolk via Routes 17, 10/32, and 460 (Map 1-1).

Figure 1-1

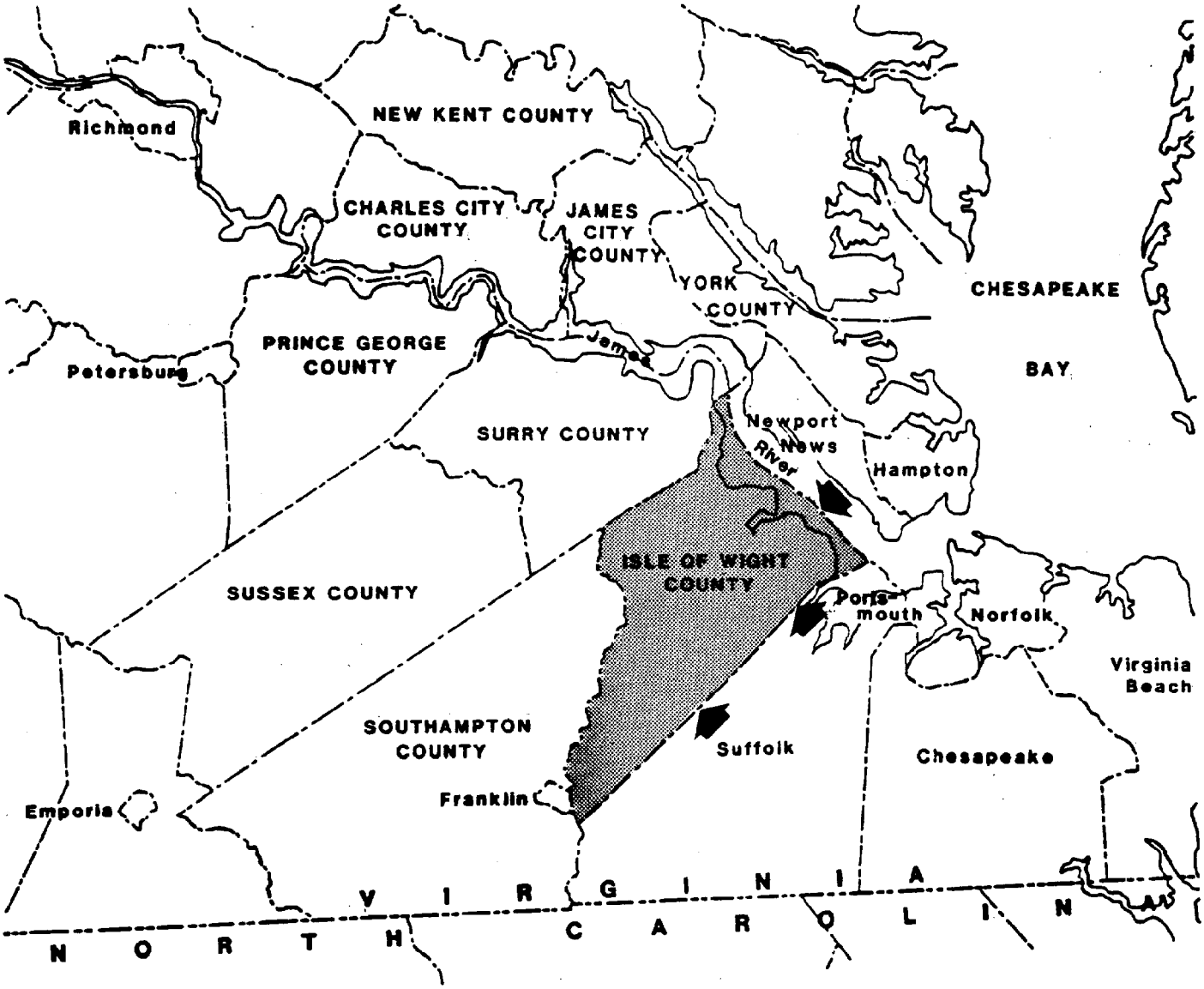
Regional Population Growth Hampton Roads, VA



Source: 1960-1980 U. S. Census Bureau
1995-2010 Southeastern Virginia Planning District Commission (SVPDC)

REGIONAL LOCATION:
Forces of Development Pressure

MAP #1-1



Forces of Development Pressure

Redman/Johnston Associates, Ltd.

1989

Job growth in Hampton Roads is also projected to continue to be strong in coming years. Presently Hampton Roads is the largest labor market in Virginia outside the Washington D.C. area. Employment in Hampton Roads has expanded considerably in recent years. As can be seen in Figure 1-2, between 1980 and 1987 nonagricultural civilian employment grew by just over 106,000 workers from 445,228 to 551,585 for a compound annual growth rate of 3.1 percent. This is greater than the 1.8 percent experienced by the nation during the same period. Approximately 68 percent of the jobs created in Hampton Roads were in the Southeastern Virginia sub-region, while 32 percent occurred in the Peninsula sub-region. While in absolute terms, less jobs were created on the Peninsula, in relative terms, nonagricultural civilian employment expanded at the same rate in both sub-regions of Hampton Roads. In 1980 Isle of Wight County comprised 3.3 percent of the region's civilian employment base.

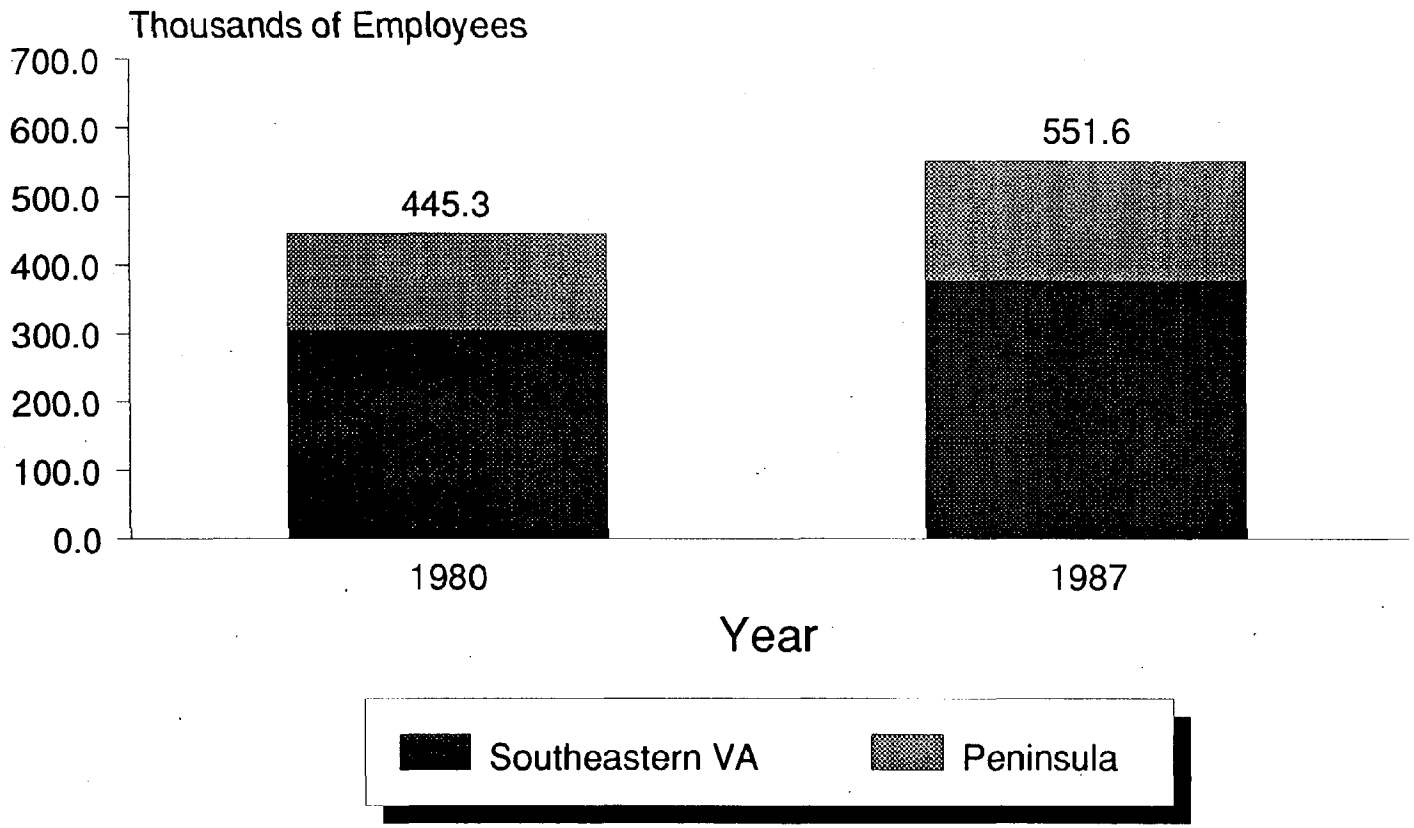
Approximately one half of the County's resident nonagricultural labor force presently commutes out of Isle of Wight for work. An equal number of persons commute into the County each day for employment. The County is linked to the surrounding region by an excellent road, rail and water transportation system. In summary, it is evident that Isle of Wight is, and will continue to be, directly influenced by the recent and projected growth of Hampton Roads. Nevertheless, the County remains a rural County today, with a population estimated to be 30,000 residents within a land area of 319 square miles. The current population density in people per square mile of 94 is typical of a rural county.

Population

Isle of Wight County experienced only moderate population growth between 1960 and 1980, from 17,200 persons in 1960 to 21,603 persons in 1980. This averaged about 1.2 percent per year. By examining the number of building permits issued in the County between 1980 and 1988 and assuming an average household size of 2.8 persons per household, it is estimated that population in Isle of Wight has increased 8,425 persons or 39 percent during this recent eight year period. Using this methodology it is estimated that 1988 population of Isle of Wight is 30,028 persons. Between 1980 and 1988, population in the County grew an average of 4.9 percent each year. This recent eight year trend is significantly higher than in previous decades (Figure 1-3).

Figure 1-2

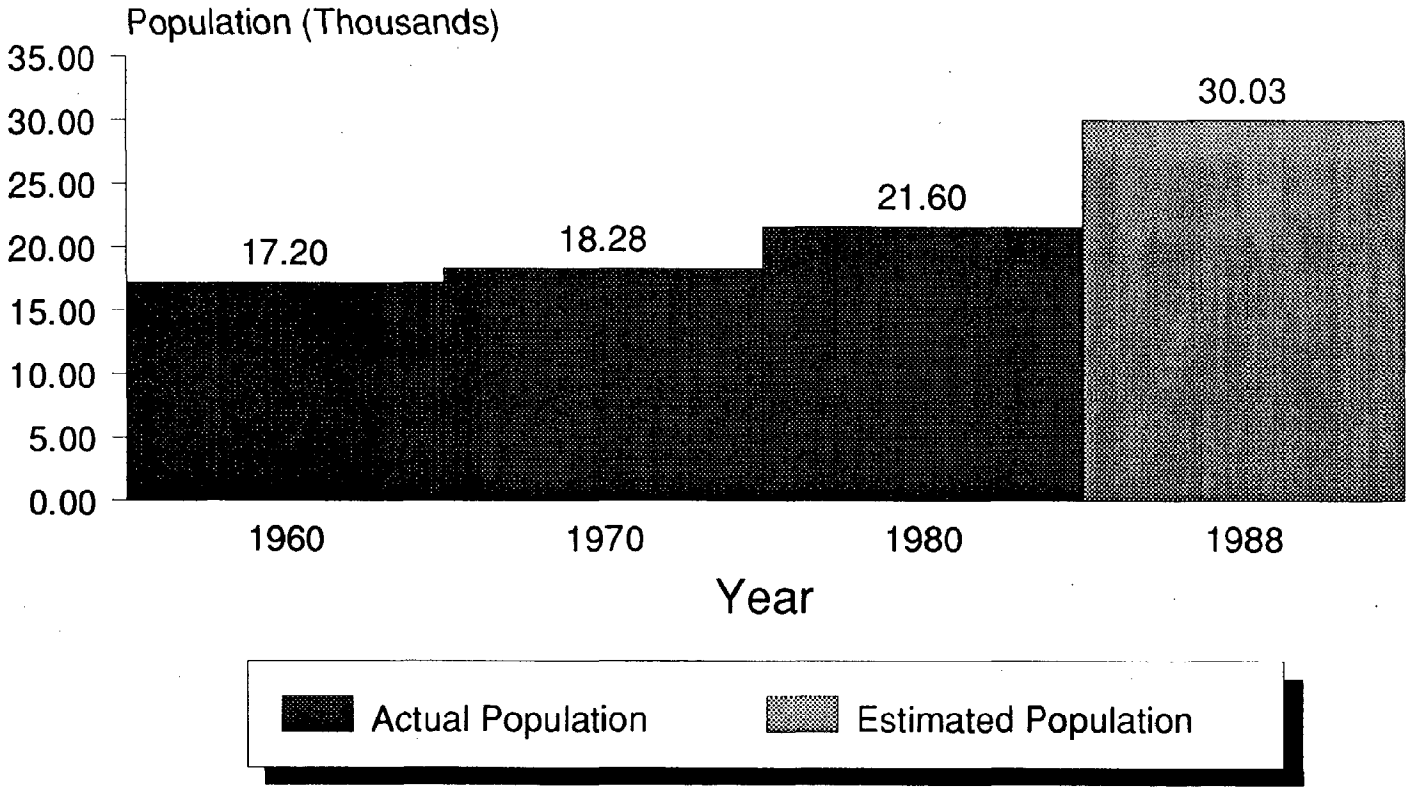
Non-Agricultural Civilian Employment Hampton Roads, VA



Source: Virginia Employment Commission

Figure 1-3

Population Growth
Isle of Wight County, VA



Source: 1960-1980 U. S. Census Bureau
1988 Estimate RJA

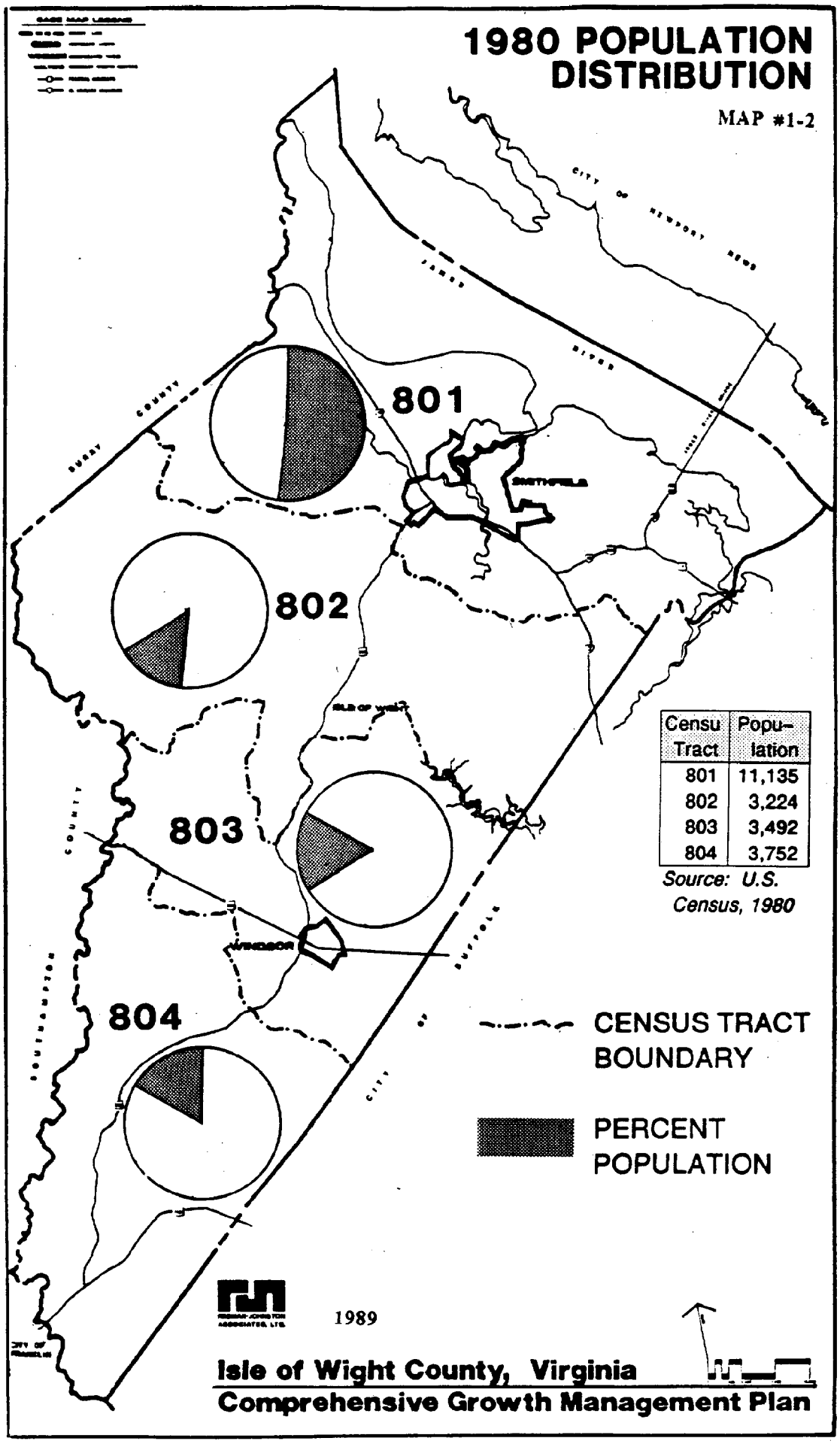
Within Isle of Wight, population is generally dispersed; however, there isa concentration located in the northeastern section of the County. In 1980, 52 percent of the County's population was located in this area (Census Tract 801), which includes the incorporated Town of Smithfield (1980 population: 3,649). The remainder of the County's population is nearly evenly dispersed between census tracts 802, 803, and 804 (Map 1-2). The 1980 population of the incorporated Town of Windsor was 985.

Between 1980 and 1988 the majority of population growth in Isle of Wight occurred in the unincorporated area of census tract 801. Due to this area's proximity to the growing Peninsula jurisdictions and rapidly developing northern Suffolk, future growth is expected to occur in this area. The major limiting factor for population growth in this area is the absence of public sewer and water facilities. In recent years much of the development in northeastern Isle of Wight has occurred in and around Smithfield due to the past availability of Town sewer and water. The Smithfield sewage treatment facility is presently operating at or above capacity so future population growth in and around the Town is limited absent additional sewer service.

Population Projections

During the development of this Plan several alternative population projections were prepared and considered for Isle of Wight. For purposes of this document one set of projections was selected as the basis for future planning. The projections used are based on an extrapolation of the average number of building permits issued through the period 1970 to 1988 compounded by incremental reductions in the average number of persons per household throughout the projection period. Using this methodology, Isle of Wight population is projected to be 47,097 in the year 2010 (Figure 1-4). This represents a projected growth of 17,069 persons within the planning period, a 57 percent increase from currently estimated levels. On the average population growth is projected to occur at an annual rate of 2.6 percent between 1988 and 2010. This growth rate is higher than the 1960 - 1980 rate but less than the 1980 - 1987 rate.

As population increases in Isle of Wight the number of households created will increase at an even greater rate due to the national trend of decreasing average household sizes. A household is typically defined as "all persons, related or not,

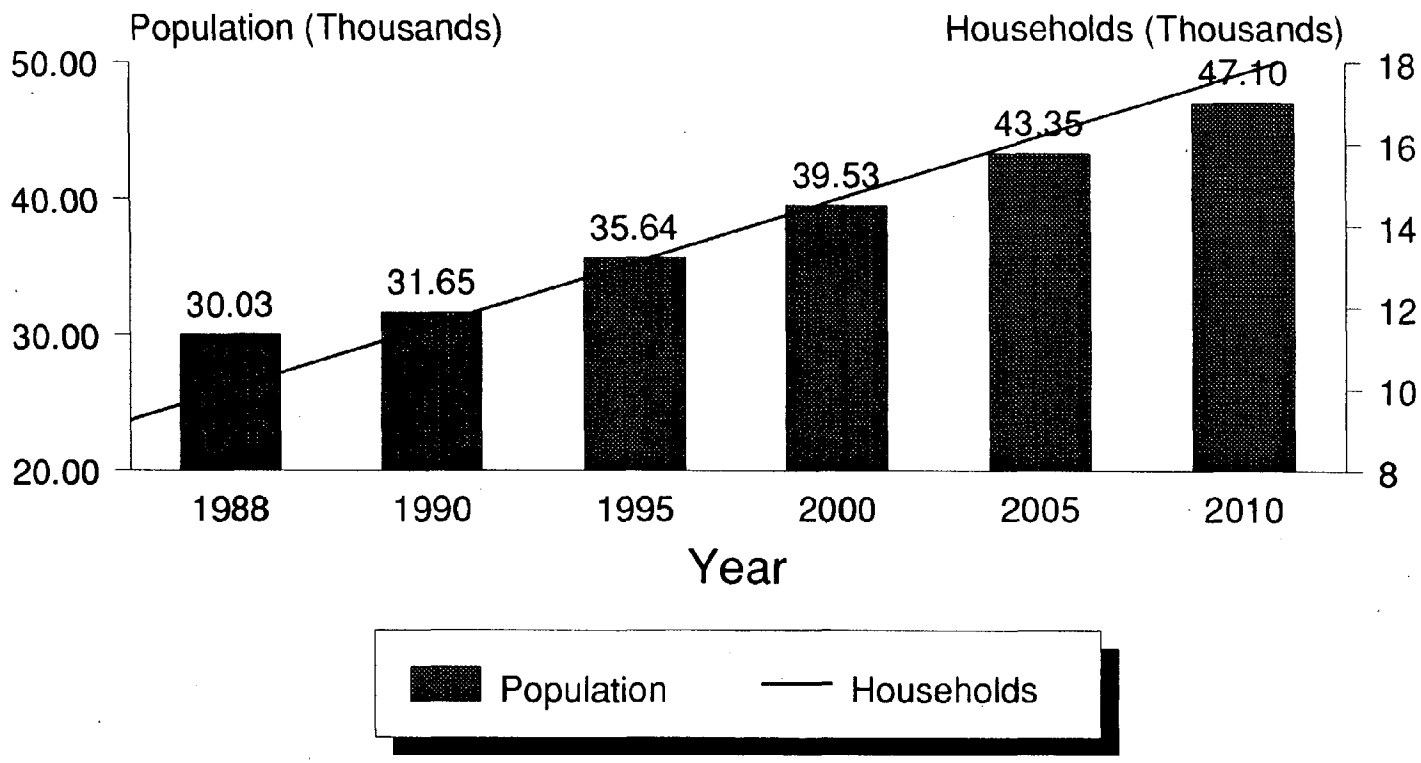


Censu Tract	Popu-lation
801	11,135
802	3,224
803	3,492
804	3,752

Source: U.S. Census, 1980

Figure 1-4

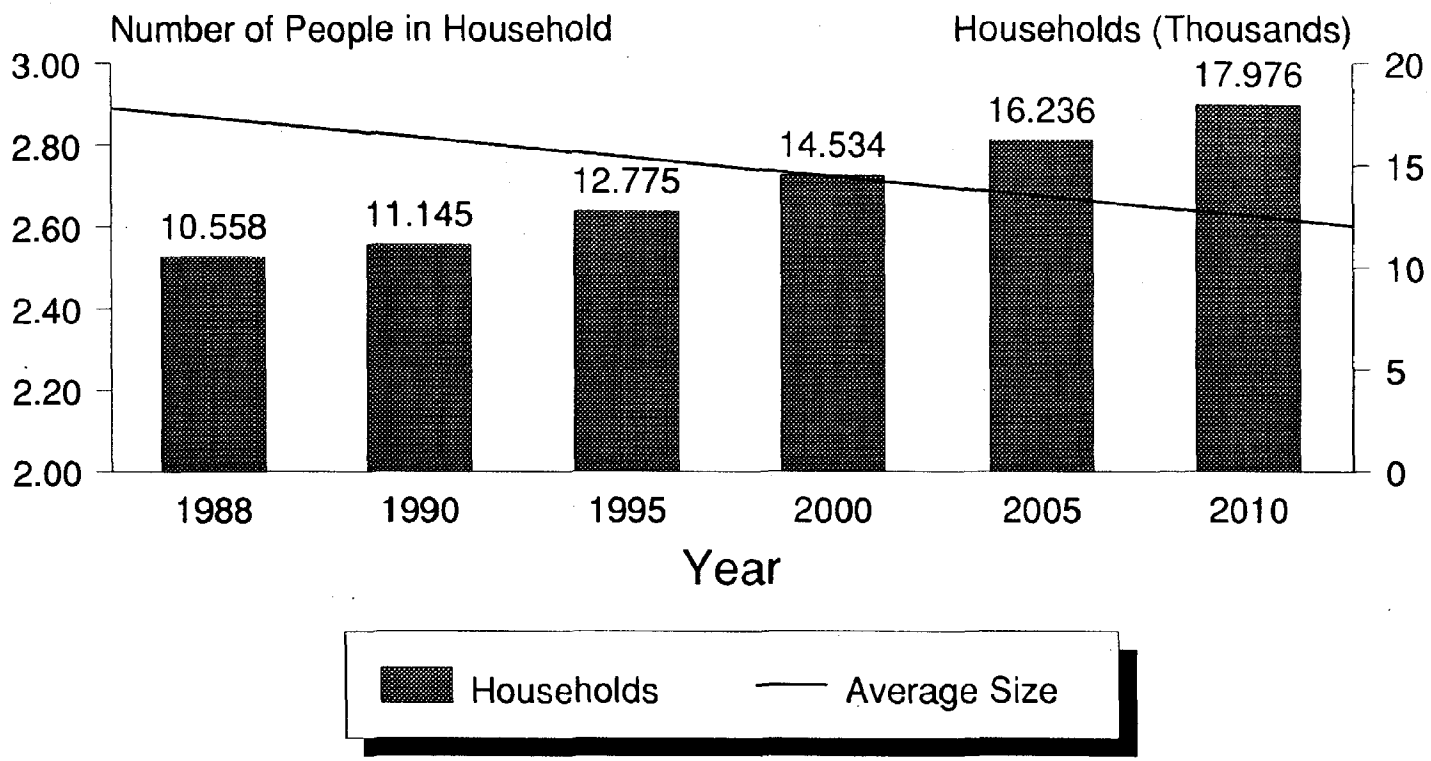
Population and Household Projections Isle of Wight County, VA



Source: REDMAN/JOHNSTON ASSOC., LTD
Southeastern Virginia Planning District
Commission (SVPDC)

Figure 1-4

Population and Household Projections Isle of Wight County, VA



Source: REDMAN/JOHNSTON ASSOC., LTD
Southeastern Virginia Planning District
Commission (SVPDC)

occupying a housing unit." Average household size is projected to decrease from 2.84 persons per household currently to 2.72 in 2000 and 2.62 in 2010. This trend has implications for future housing demand in the County as more units will be needed not only to serve population growth, but also to accommodate smaller households. In light of recent population and development activity within the region and the County, it might appear that these population projections are somewhat conservative. Population growth in the County between 1980 and 1988 occurred at an average annual rate of 4.9 percent compared to the 2.6 percent rate used in the 1988-2010 projections. It should be noted that Isle of Wight's population growth is mostly affected by in-migration of persons from the urban jurisdictions of Hampton Roads. As infrastructure improvements are made in other jurisdictions throughout the region, demands for growth in other jurisdictions will compete with growth demands in Isle of Wight County. For example, when the new James River Bridge/Tunnel (I-66) is completed in 1990/91 access between the Peninsula and the City of Suffolk will improve dramatically thereby strengthening the demand for growth in that jurisdiction. Suffolk currently has approximately 22,000 approved lots and units on the books which are not yet developed.

On the opposite end of the Peninsula, Gloucester County is presently growing at a faster rate than Isle of Wight and current construction of Hampton Roads Sanitation District (HRSD) sewer lines into that County is expected to generate additional growth demand. The point is, that while the region is projected to continue to grow, there are many places in the region other than Isle of Wight for growth to occur. In-fill development in urban localities and development in other fringe jurisdictions will all accommodate portions of the future regional growth.

The Southeastern Virginia Planning District Commission (SVPDC) population projections for Isle of Wight are significantly lower than those used in this Plan. SVPDC projects the County's population in the year 2010 will be 32,100 persons. This is approximately 15,300 persons or 32 percent less than the Plan's projections. SVPDC uses a regional share formula to allocate overall Hampton Roads' projected growth among its 14 jurisdictions.

Whether Isle of Wight County's population continues to grow at the rates projected in this Plan depends on several factors, including:

- the health of the national and regional economy;
- the provisions for growth provided by other jurisdictions within the region; and
- the willingness of local residents and organizations to provide funds for the public and private programs needed to accommodate growth.

Population projections are inherently subject to many external and unforeseeable forces. The projections presented in this Plan should be updated on a periodic basis to reflect changing trends and circumstances as they develop.

Housing

Between 1980 and 1988 year-round housing units in Isle of Wight are estimated to have increased by 2,905 units, from 7,653 in 1980 to 10,558 in 1988. Of these, 1,552 units or 54 percent were single-family homes, 98 units or 3 percent were multi-family units, and 1,255 units or 43 percent were mobile homes (Figure 1-5).

Single-family homes presently comprise 73.7 percent of the total Isle of Wight housing stock. Multi-family units and mobile homes make-up 4.9 and 21.4 percent of the housing stock respectively. Clearly, the predominant form of housing in Isle of Wight is the single-family home. In response to the need for affordable housing and the desire to live in single-family units, the number of approved mobile homes has more than doubled in the last eight years from 1,012 in 1980 to 2,267 in 1988.

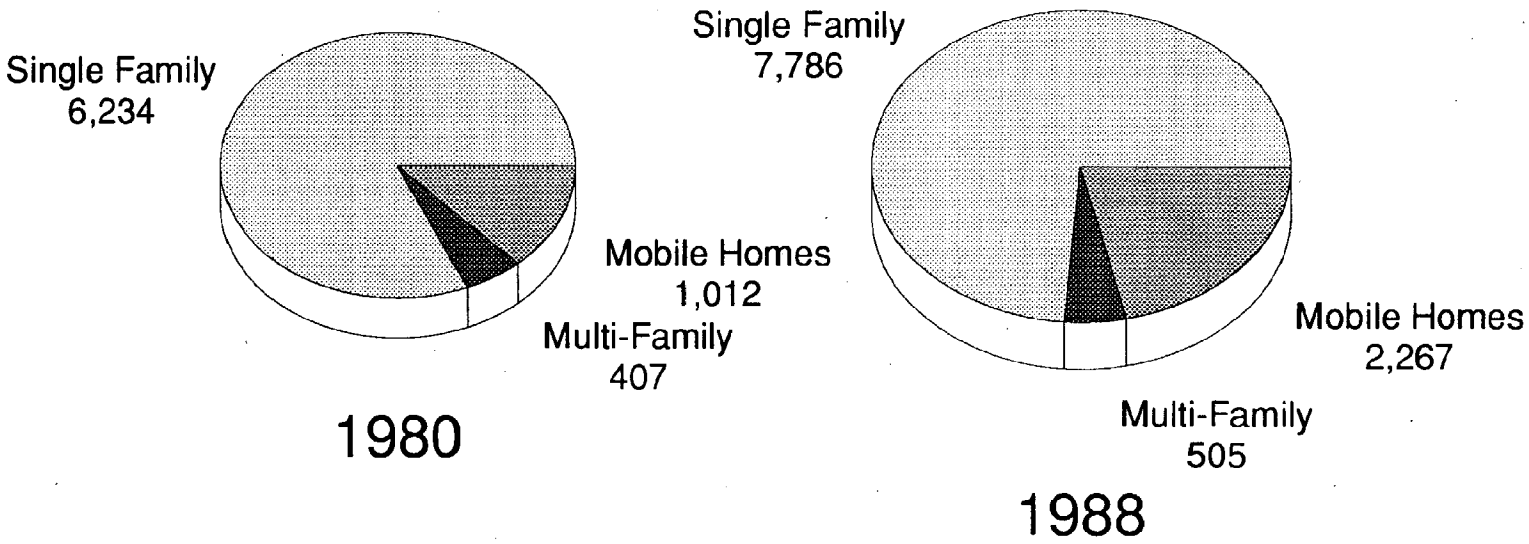
Housing unit projections for Isle of Wight are based on the population and household projections earlier presented. Figure 1-7 shows housing unit projections to the year 2010. The breakdown in the projections between single-family units, multi-family units, and mobile homes are based on an extrapolation of 1988 total housing stock percentages. The projected breakdown of types of housing is subject to significant deviation due to changing development trends.

Income

Per Capita Income in Isle of Wight increased at a faster rate than the State between 1970 and 1984 (Figure 1-7). In actual dollars, per capita income increased from $3,032 in 1970 to $11,647 in 1984. In constant 1984 dollars, per capita income increased between 1970 and 1984 by a 2.5 percent compound annual growth rate compared to the State's rate of 2.4 percent. However, in 1984 Isle of Wight per capita income was only 86 percent of the state average. 1986 per capita income for

Figure 1-5

Housing Growth
Isle of Wight County, VA

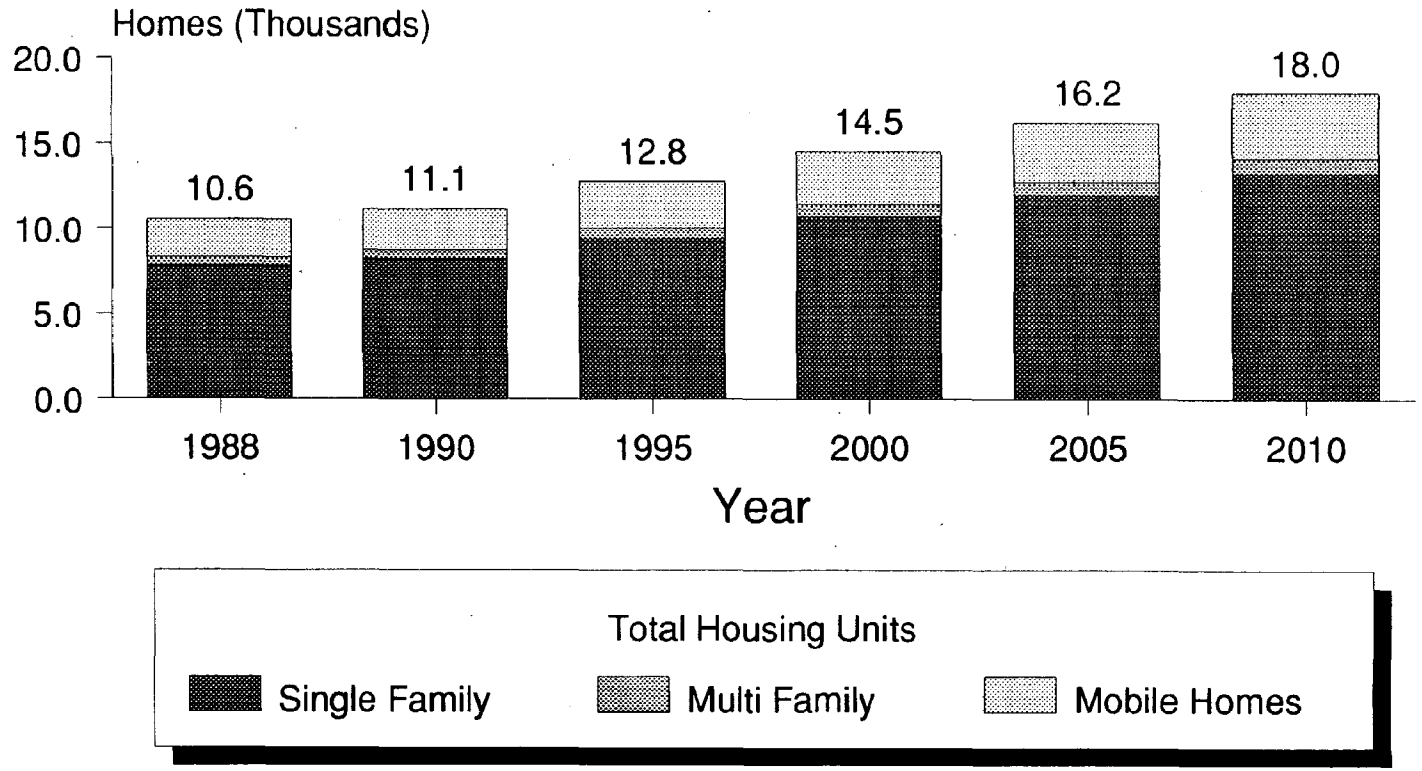


Source: U. S. Census Bureau
Isle of Wight County Building Permits

Figure 1-6

Homes to Increase 7,418 by 2010

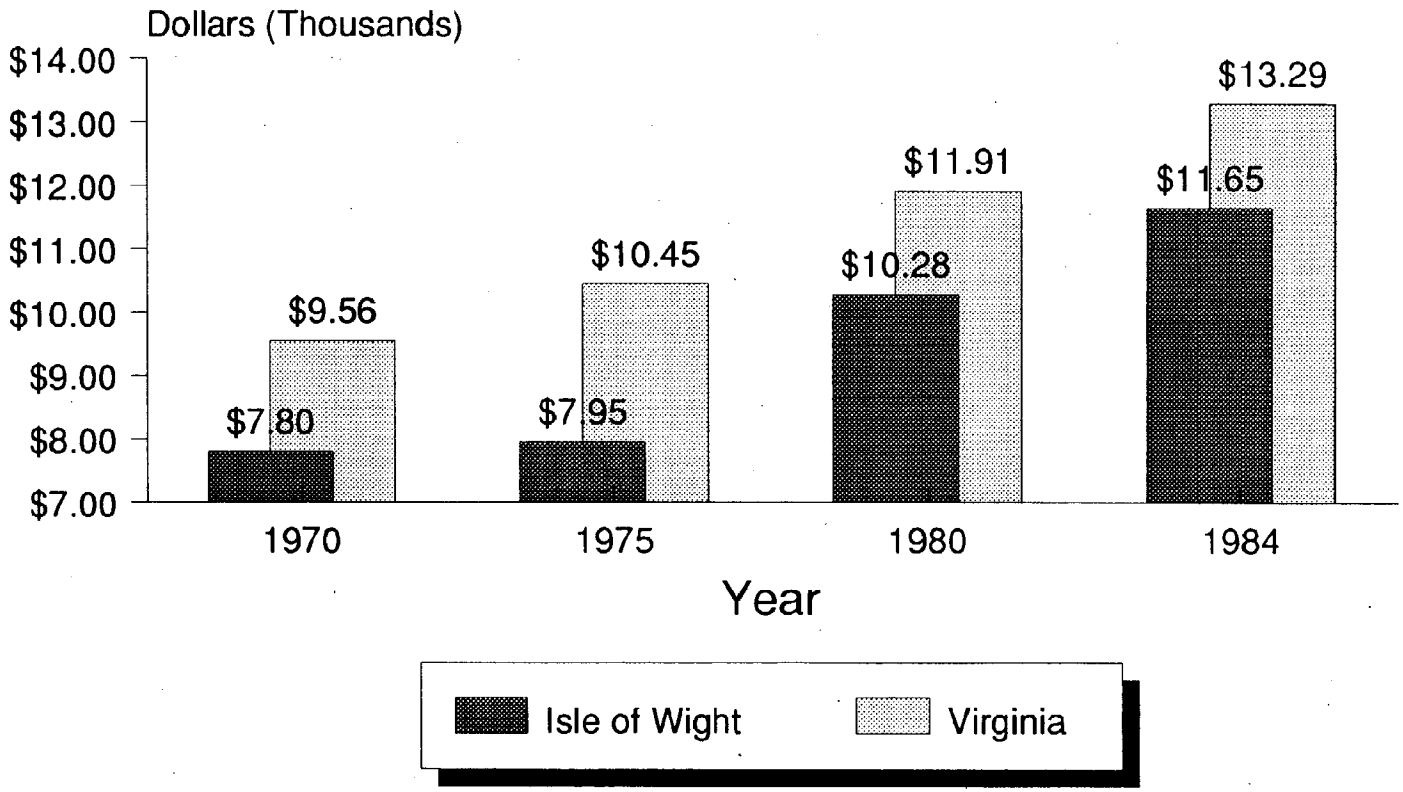
Isle of Wight County, VA



Source: REDMAN JOHNSTON ASSOCIATES, LTD
assumes 1988 distribution of housing
types (Figure 1-5)

Figure 1-7

Per Capita Income 1970-1984 in 1984 Constant Dollars



Source: Southeast Virginia Regional Planning District Commission (SVPDC)

Isle of Wight was $13,775. The County has been very successful at raising its per capita income over the years. Incomes in the County are today only slightly below the national average as compared to a far less favorable situation just a few years earlier. Presently, the County ranks fourth in the region in per capita income. In 1986 Isle of Wight had the third highest "average earnings by place of residence" within the Hampton Roads region, at $25,145. The County presently has the highest "average weekly wages" of all jurisdictions in the region. This is due in part to the strong manufacturing employment base within the County which typically pays higher wages than other economic sectors such as retail and service businesses. As the County continues to grow and develop it is projected that average income levels within Isle of Wight will continue to increase.

Employment

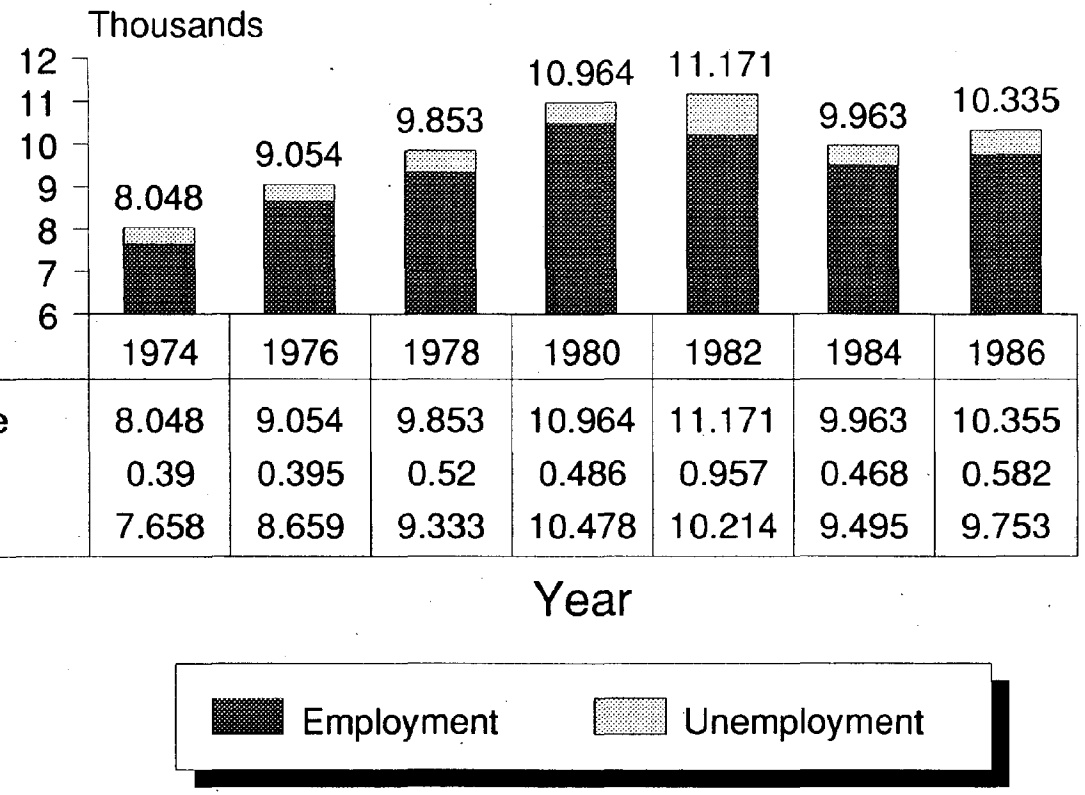
The actual size of the civilian labor force varies from year to year in Isle of Wight, but, in recent years, it has averaged just over 10,000 persons. Employment and unemployment have also fluctuated in recent years (Figure 1-8).

While having a relative balance in the aggregate supply and demand for jobs, Isle of Wight County has been characterized by a high rate of commuting. Approximately 50 percent of the jobs in Isle of Wight are filled by County residents. The other 50 percent are filled by commuters from surrounding jurisdictions. The remaining 50 percent of the County's resident labor force commutes out of the County each day for employment.

Isle of Wight's major employers are located at extreme ends of the County and are not located near the "center of mass" of the County's population. In other words, on a statistical basis, a great number of jobs are located in the County but because many of these jobs are not located near the homes of County residents these jobs are no more available to them than persons living in neighboring communities. The labor sheds (areas from which employers derive their supply of workers) for the County's two largest employers, Union Camp and Smithfield Foods, extend far into nearby jurisdictions so that Isle of Wight residents must compete with them for jobs which statistically and jurisdictionally are in Isle of Wight. Because these labor sheds are "off-center", they provide a more limited range of job opportunities than

Figure 1-8

Labor Force and Employment Isle of Wight County, VA



	1974	1976	1978	1980	1982	1984	1986
Civilian Labor Force	8.048	9.054	9.853	10.964	11.171	9.963	10.355
Unemployment	0.39	0.395	0.52	0.486	0.957	0.468	0.582
Employment	7.658	8.659	9.333	10.478	10.214	9.495	9.753

Source: U. S. Department of Labor
Bureau of Labor Statistics

one might suspect, and many residents must commute beyond the County's borders to find employment.

Unless measures are taken to provide a better dispersal of jobs in the County, this pattern of commuting will persist and, in fact, grow worse as the County adds new residences. Already the County is demonstrating a pattern of significantly higher rates of unemployment than has historically been the case. From 1974 to 1980, unemployment rates in the County were significantly below those of the Peninsula and south Hampton Roads. Since 1980, that pattern has changed dramatically since the County's rate has in every year exceeded the average of its two nearby metropolitan neighbors. This pattern is explained by both an acceleration in the County's population growth and a deceleration in the County's rate of job creation. Unless the County can increase its rate of job creation in diversified economic sectors, then the current pattern of higher unemployment is likely to persist.

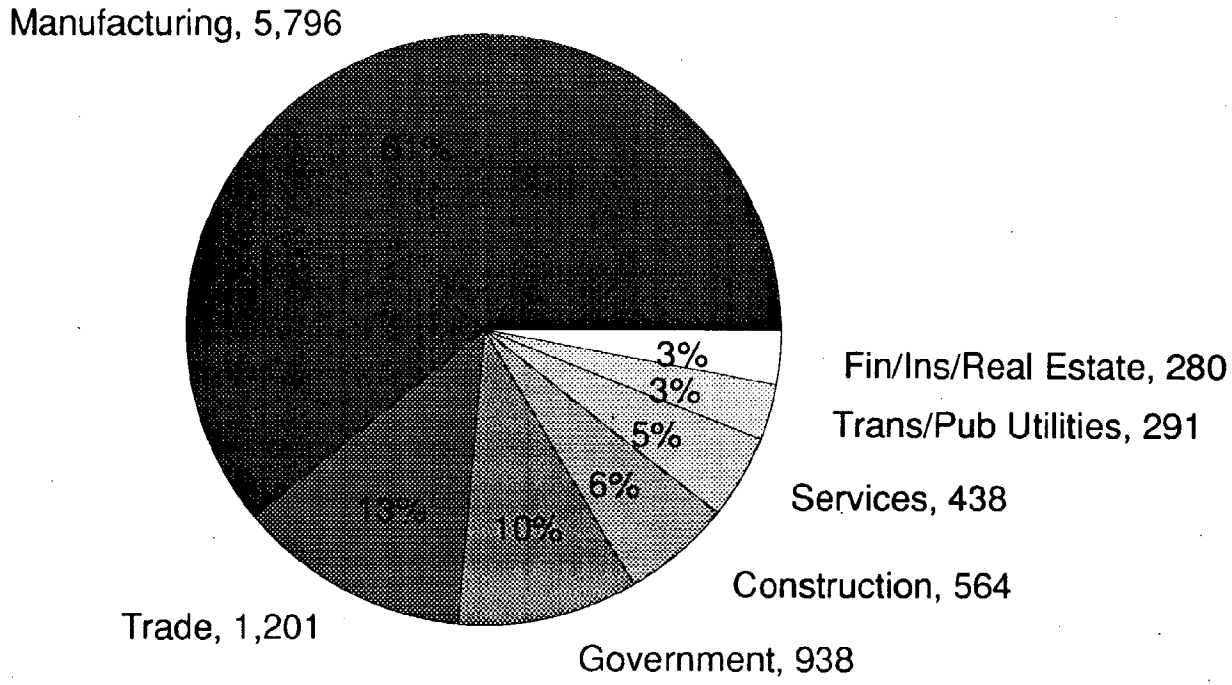
Isle of Wight's economy is solidly built on manufacturing. Approximately 60 percent of all jobs in the County are in the manufacturing sector. Of this 60 percent, 86 percent of the manufacturing jobs are in two companies: Union Camp and Smithfield Foods. Currently more than 50 percent of the total jobs in Isle of Wight are located in these two businesses. In 1986 retail employment as a percent of total employment in the County was only 9.3 percent compared to 17.5 percent in Suffolk and 12 percent in Newport News. As residential and industrial development increase in Isle of Wight it is projected that retail development and employment will also grow.

The current estimated breakdown of employment for the County by category is shown in Figure 1-9.

Existing Land Use and Development Patterns

The development pattern of Isle of Wight is characteristic of a rural County on the fringe of an expanding metropolitan area. Generally, the majority of the County is characterized by crop land, forests, and a scattering of farm, single-family, and mobile home residences (MAP 1-3). Crossroads communities of various sizes and development mixes are located throughout the County. These include Wills Corner, Rushmere, Central Hill, Walters, Zuni, Rescue, Battery Park, Isle Of Wight Courthouse and Orbit. Development within the County is also concentrated within

Figure 1-9
Isle of Wight Resident Employment



Total Non-Agricultural
9,499

Source: Virginia Employment Commission

Map 1-3: Existing Generalized Land Use
(Reserved For Color Printing)

and around the incorporated towns of Smithfield and Windsor, and northeast of the City of Franklin in the Camptown community. Outside of these concentrations, development has generally occurred in a random fashion along highways throughout the County. Most of this development is single-family detached housing and mobile homes.

In recent years the County has been experiencing significant residential subdivision development, particularly in the northern third of the County and the area around Windsor. This development activity has primarily taken the form of single-family detached home subdivisions and mobile home parks. Between 1980 and 1988 the County approved 1,552 single-family homes and 1,255 mobile homes, the vast majority of which are located either in subdivisions or mobile home parks. Major single-family subdivisions in the County are primarily located around Smithfield and areas north and east. The larger mobile home parks are located near Smithfield and Windsor.

The majority of the County's commercial development is concentrated in and around the towns of Smithfield and Windsor, along U.S. Highway 58 near the City of Franklin, and scattered along Routes 10, 32, and 17. Other commercial activity is scattered throughout the County in rural communities and at rural highway intersections. The majority of this rural commercial activity is primarily limited to general convenience stores, service stations, and farm supply and equipment operations.

Major industrial land uses are presently confined to four general areas of the County: the meat packing plants located in Smithfield, the Union Camp paper mill north of Franklin, and agricultural operations in Windsor and Zuni along the Route 460 corridor.

Public uses are located throughout the County, but the most significant ones are: John Beverly Rose Airport on U.S. Highway 58, owned by the City of Franklin; Hardy Elementary School on Route 10 northwest of Smithfield; Smithfield Elementary School south of downtown Smithfield on U.S. Highway 258; Windsor Elementary School at the intersection of U.S. Highway 258 and Route 610; Carrsville Elementary School on U.S. Highway 58 Business in Carrsville; Windsor High School on Route 603 in

Windsor; Smithfield High School on Route 644; County Government Complex at Isle of Wight Courthouse; County Landfill off Route 709; Isle of Wight/Smithfield Library in the Town of Smithfield; and Carrollton Nike Park on Route 669. Numerous semi-public uses such as churches and cemeteries are scattered throughout the County.

Development Trends

Residential development has been predominant in the County in recent years and is expected to continue to be the major form of development in coming years. There are currently about 7,000 residential lots/units within the County which are under various stages of review, approval, or construction. Approximately 3,500 of these residential lots/units are single-family, 2,700 are multi-family and 800 are units in mobile home parks. These lots/units are contained within 52 separate development projects ranging in size and intensity from an eight-lot single-family subdivision to 2,602 multi-family units proposed as part of a major planned unit development project. The majority of recent and projected residential development is expected to occur in the northern third of the County, primarily due to this area's proximity and accessibility to employment centers on the Peninsula and in northern Suffolk.

The County presently has a significant deficit of commercial development needed to serve local needs (see Chapter Nine, Economic Development). In the past Isle of Wight has not had a critical mass of population necessary for sizable commercial expansion. However, between 1980 and 1988, 750 new building permits were issued for commercial construction. The number of approved building permits for commercial developments has been steadily increasing in recent years.

As residential and industrial development increase within the County, it is expected that additional commercial (business and office) development will follow. Future commercial development demand will be strongest in the northern third of the County in response to increased residential development in this area. Of the 24 commercial development projects currently under review, approval or construction in Isle of Wight, nearly all are located in the northern third of the County along routes 258, 10, 32, and 17.

Isle of Wight has traditionally had a strong industrial base with the presence of Union Camp facilities near Franklin and the meat packing facilities in Smithfield.

Major constraints to additional industrial development in the County have been lack of infrastructure (water and sewer) and limitations on the size of the available labor force. As County population grows and infrastructure improvements are made, Isle of Wight is expected to attract additional industrial development. There is a significant amount of acreage zoned for industrial use along Route 58 and the rail lines in the vicinity of Union Camp. East and west of Windsor, along the Route 460 and rail corridor, large tracts of land are available for future industrial growth. Industrial development in the County which is currently under review, approval, or construction includes: two industrial parks; a cold storage facility; a manufacturing facility near the existing airport, a business park as a component of a proposed major planned unit development in the northeastern section of the County; a proposed race track facility north of Windsor; and a proposed coal storage facility outside of Windsor along the Norfolk Southern rail corridor.

Summary

The demographics of Isle of Wight County will change considerably over the next 20 years as the County starts to grow and develop. The growth is not yet of signifcant character to say that the County is starting to urbanize. However, that process will start to occur within the next next 20 years. The County must start planning for its growth or it will go elsewhere in the region. There are many choices withing the region, and the share of the growth that the County garners will be directly related to its efforts in carrying out this Plan.

The magnitude and direction of these changes will be a reflection of the objectives and policies contained in the remaining chapters of this Plan and the County's commitment to plan implementation. These economic, social, and land use changes make planning for the future a difficult, yet important, challenge. The presentation of the statistics, trends, and projections of this chapter provide a baseline for comprehensive growth management planning in Isle of Wight County.

Chapter 2

Growth Management and Land Use

Chapter Two: GROWTH MANAGEMENT AND LAND USE

Introduction

Throughout most of its long history, Isle of Wight has been characterized by a number of compact and rural settlements spread over a landscape of farmlands, woodlands, waterways, shoreline, and extensive undisturbed natural areas. For years, the County has been noted for its rural character and image, its James, Pagan, and Blackwater River shorelines, its rich historical and cultural heritage, and its slow-paced rural way of life.

The rapid growth in the region of the past decade has brought changes to the County: changes welcomed by many, lamented by others, but of concern to all. Inevitably, in such a process, Isle of Wight County's renowned assets have been threatened by spot development, increased traffic volumes, declines in the quality of the natural environment, services unable to meet needs, housing problems, and declining agricultural land.

Growth management must be a coordinated effort by County government to achieve a more efficient pattern for future development, in accordance with a comprehensive land use plan for the community. A growth management strategy will guide new residential development to locations where adequate public infrastructure such as roads, water, sewer, schools, and related facilities, is available or can be provided most efficiently. Commercial, office, and industrial development areas to serve residential development will be identified. Open space, agricultural areas, and environmentally sensitive areas which require protection and conservation will be identified.

A growth management strategy will allow for costly public facilities such as water and sewer systems and roads, to be planned more efficiently. Future development will be directed into areas where major public facilities are in place or proposed. Guided growth will reduce development pressures on natural systems such as wetlands and agricultural lands. Managed growth will help maintain an important and desired distinction between rural and growing areas of the County.

Growth management is not a new idea for Isle of Wight County. The 1977 Comprehensive Plan For Future Land Use designated County "Growth Areas". However, efforts to define and implement the growth management concepts of the 1977 Plan over the last ten years have not been effective. The spread of low density suburban development has occurred primarily because the County Zoning Ordinance was never amended specifically to reinforce and implement the 1977 Plan's growth management concept.

Growth Management Issues

While the topic of growth management encompasses many aspects of County growth and development, it most strongly relates to land use planning. Existing and future land use patterns will affect such things as: planning for water, sewer, and other community facilities; planning for roads; planning for economic development; agricultural preservation; opportunities for affordable housing; protection of sensitive environmental features; natural resource management; etc. Decisions made concerning land use affect most other aspects of County growth management.

Early in the planning process a number of growth and development issues and concerns were identified by County residents and the Plan Advisory Committee. These issues and concerns formed the basis for establishing growth management objectives for Isle of Wight County. A summary of major issues identified includes:

- The need to accommodate new growth (residential, commercial, and industrial) in an orderly fashion with respect to locational considerations, environmental and economic impacts, and quality of development.
- The need to preserve rural character which includes agriculture, open space, low taxes, low crime rate, and a strong sense of community.
- The need to preserve the agricultural and seafood industries and traditions within the County.
- The need to conserve and protect the County's natural resources and environmentally sensitive areas.
- The need to provide additional commercial and industrial opportunities within the County to maintain a favorable tax base and structure.
- The need to provide needed community facilities in a cost-efficient manner so that new development pays a "fair-share" of the costs associated with additional demand.

- The need to plan ahead for future road improvements and new alignments with consideration given to avoiding congestion and the appearance of future County highway development.

- The need to improve cultural and recreational amenities such as libraries, parks, historic sites, and waterfront access which will improve the quality of life for County residents.

- The need to provide a variety of housing opportunities, ranging in type and affordability, which are compatible with the existing high-quality residential character of the County.

- The need to improve coordination/cooperation between the County and incorporated jurisdictions, both within and adjacent to Isle of Wight, regarding growth management.

Growth Management Goals and Objectives

The County now has the opportunity to renew efforts to guide the land use pattern of future development. Given the far reaching benefits of guided growth, the goal of the County regarding growth management is: **To guide future development into an efficient and serviceable form which is protective of the County's predominantly rural character.**

Specific objectives designed to accomplish this goal relate land use decisions to other aspects of the overall County growth management approach. These objectives are:

- **To direct the majority of future County development to areas already or proposed to be served with adequate public facilities such as sewer, water, roads, schools, etc.**

- **To limit future suburban sprawl in rural and agricultural areas where adequate public facilities do not exist or where their provision would not be cost-efficient.**

- **To preserve farmland, forested areas, open space, and rural character.**

- **To discourage growth in areas with significant natural development constraints such as environmentally sensitive areas and natural resource areas.**

- **To discourage strip development along County roads and highways for both traffic safety and aesthetic reasons.**

- **To require that adequate public facilities are in place or proposed prior to development approval, regardless of where the development is located.**

- **To provide land areas for balanced future commercial and industrial development in locations which are compatible with existing and planned residential development.**

- **To require that future growth pay a "fair-share" of the associated costs for additional public facilities and services for which new development generates demand.**

- **To improve the quality of future development and redevelopment through improved site planning and design standards.**

- **To identify and preserve historic and/or architecturally significant areas, sites, buildings, and properties within the County.**

- **To coordinate County growth management plans with plans and policies of the incorporated Towns of Smithfield and Windsor, and adjacent jurisdictions.**

- **To preserve the unique character of the County's many existing rural community centers.**

Growth Management Concept

The County future land use plan is presented on the Growth Management Plan Map. The growth management concept includes eight plan areas/districts. These are:

- Development Service Districts
- Activity Centers and Incorporated Towns
- Planned Unit Development Districts
- Rural/Agricultural Conservation Districts
- Community Centers
- Neighborhood Conservation Districts
- Resource Conservation Districts
- Highway Corridor Districts

Not all of these plan area/districts are pre-mapped on the Growth Management Plan Map; however, all are explained in the remaining parts of this chapter. The plan area/districts are described in terms of their respective roles in guiding and managing County growth and development. The description of plan area/districts includes discussion of the general types, intensities, and character of development which should be encouraged within. Plan area/districts are derived from a combination of factors including: existing land use patterns; projected growth and development trends; the natural capacity and suitability of the land to support

development; the availability and adequacy (existing and proposed) of development infrastructure such as roads, sewer, and water; and the community goals and objectives contained in this plan.

The Growth Management Plan Map and this accompanying text establishes a framework and basis for further refined classification of land into zoning districts pursuant to plan adoption. In addition to serving as a general guide for land use policy, the growth management concept should also serve as a guide to County decision-makers regarding capital improvements programming for community facilities and transportation planning.

The remainder of this chapter is dedicated to a discussion of the plan area/districts.

Development Service Districts

The Growth Management Plan Map indicates designation of three strategically located Development Service Districts which generally coincide with portions of the major transportation corridors and potential future Hampton Roads Sanitation District (HRSD) sewer service areas.

Areas designated Development Service Districts generally have served and are expected to continue to serve as the principal residential, commercial and employment centers of the County. These areas comprise the most suitable locations for future growth and development. Growth in and around these areas will prevent the outward sprawl of development into other County areas, and concentrate future residential growth in areas where residents can be economically provided with utilities, services, and employment. In addition, the impact upon the County road system will be minimized since families will have the opportunity to be located physically close to the jobs and services which they require. These considerations, plus the need to preserve the open character of the County's outlying rural areas, indicate that the areas designated as Development Service Districts should accommodate most of the County's residential, commercial and industrial growth through the year 2010.

Economic development objectives and recommendations contained in later sections of the Plan emphasize the importance of locations within the three Development Service

Districts for industrial, commercial and office development. Activity Centers and incorporated Towns within the Development Service Districts should be the focal points for commercial service and business development, industry, and higher density residential development.

The three Development Service District shares several common attributes. Each is subject to greater development pressure than many other County areas, particularly rural and/or agricultural areas. Each either has in place or provides opportunity to put in place the kind of services required by development. These services include an existing or planned transportation system that can accommodate the movement of people and goods, and sewer and water facilities that can service development at greater residential densities or can service industrial and commercial uses. Each of these areas is in some way already characterized by development activity which suggests that efforts to preserve farmland or to establish significant resource protection programs would be less effective in these areas than if established in other County areas.

The major advantage of the Development Service District concept is to map in advance those areas where the County will accept a responsibility for providing infrastructure or will accept the responsibility for working with the development interests of the County to be sure it is put in place. However, this in no way implies that the full costs of development will be borne by the general County taxpayer. In providing opportunities for development in these areas, the County can thereby better achieve its resource protection and its agricultural conservation objectives by reducing pressure for development in other County areas dominated by farming activity or sensitive natural resources.

Growth in the Northeast and 460/Windsor Development Districts (including the Town of Windsor) can be more cost effectively managed in that both areas have potential for the provision of central sewer and water facilities by the County and Hampton Roads Sanitation District. The challenge is to ensure that public services and facilities and the highway systems keep pace with the conversion of land in these areas from rural to urban. Likewise, the plan must provide protection for natural resources such as the James and Pagan Rivers and elements of rural character that are pervasive as well as desirable in these areas, while recognizing that the overall

character of these areas will be that of Development Service Districts in contrast to other areas of the County where a rural character will be maintained. The Development Service Districts will be those areas where urbanization will occur if the County garners its share of the regional growth. To generate this growth, the County should be proactive with respect to infrastructure.

Northeast Development Service District

The Northeast Development Service District is a likely candidate for a greater level of development than others due to its proximity and accessibility to the Peninsula and Northern Suffolk. This area has potential for HRSD extension of sewer facilities within the five-year planning period. Moreover, its future accessibility to these urban centers will be enhanced with completion of the James River Bridge/Tunnel connecting Newport News with the City of Suffolk. Ultimate connections of the Bridge Tunnel with Interstate 64 will create an effective regional beltway near the County's Northeast edge increasing the accessibility of this part of the County. Areas within this Development Service District have strong potential for future residential, commercial, and office development.

The Northeastern Development Service District's western edge terminates before reaching the Town of Smithfield. This break between the Town and the Development Service District should provide a protective "greenbelt" around historic Smithfield. Outward growth of the Town of Smithfield is already constrained due to the lack of sewer capacity. A greenbelt around the Town would prohibit further sprawl development on the edges of the Town. The character of the development in the Northeastern Development Service District will be significantly different from the historic nature of Smithfield. It is imperative that the County recognize this fact and work with the Town to preserve the historic nature of the Town.

Central Development Service District

The 460/Windsor Central Development Service District is also has potential for HRSD sewer service within the five-year planning period. While the level of development activity anticipated is less than that in the Northeast Development Service District, sewer availability together with adequate transportation service capacity via State Route 460 suggest some level of development activity can be expected in this area.

Areas along the Route 460 corridor and Norfolk and Southern rail line have strong potential for future industrial development.

Southern Development Service District

The Southern Development Service District extending from Carrsville to the County's southernmost border is expected to be provided sewer service beyond the five-year planning period. Therefore, major development activity is not expected to be substantial in the near term although opportunities for business/industrial development exist by virtue of the South County airport location, rail access, proximity to the Route 258/58 corridors and connector, the presence of existing utilities, and the strong presence of existing industry (Union Camp).

Planning For Development Service Districts

Ensuring the high quality of new development within the Development Service Districts is a major objective of the Plan since the majority of future County growth is expected to occur in these areas. To improve the visual and functional qualities of development within the Development Service Districts, the County will need to evaluate and revise its land use management ordinances to establish performance standards for landscaping, control of access, lot coverage, and buffering from adjacent transportation corridors. Future commercial and industrial forms of development within the Development Service Districts should be carefully evaluated to ensure compatibility with existing and planned residential areas.

Strip forms of commercial development along major County roads has not always enhanced the visual quality of development and over time has impaired the ability of the roads to serve through-traffic. Future areas designated for commercial development should be large in size (e.g. 10 to 15 acres) and should be located at intersections providing site frontage on at least two streets with adequate depth to provide space for well-planned service roads. Such sites should utilize access provided by service roads and should be adequate in size to accommodate several uses with shared access, thereby minimizing multiple outlets to the major road system. Larger commercial lot sizes would provide space to accommodate landscaping between buildings, parking areas, and roads. Reverse lot frontage development which places parking areas behind commercial and office buildings would also improve the appearance of development. Clustering of residential development should be

encouraged within the Development Service District to maintain open space. Such development, even when exclusively residential in nature, should be buffered and separated by landscaping from major routes or adjacent incompatible land uses.

Permitted development density and intensity should not be uniform throughout the Development Service Districts. Existing single-family neighborhoods should be buffered from high intensity non-residential and future high density residential development. The Activity Centers identified on the Growth Management Plan Map are intended to accommodate higher land use intensities and provide a focus for development centers within the Development Service Districts. This designation assures variety in development form and identifiable commercial and residential centers of activity within the overall Development Service District area.

Since highest residential densities will be encouraged in the areas designated as Activity Centers, generally lower densities should be prescribed in other portions of the Development Service Districts. Finally, it is important to note that residential density designations within the Development Service Districts will be influenced by the existing development pattern already established. Construction of zoning districts and standards for development will require focus at a site by site level to frame districts and standards which respect existing neighborhood patterns densities and soil conditions in the absence of central sewer systems.

Activity Centers and Incorporated Towns

With Development Service Districts designated to manage the location of the majority of projected future County Growth, the County has determined a need to further refine the degree to which the location and form of development is managed within these areas. The historic settlement patterns in certain locations within these districts, or their location within the district at the intersection of major county roads, suggests several areas which may serve as regional development centers within the Development Service Districts. Designated Activity Centers in this plan include:

- Benns Church
- Bartlett
- Carrsville
- Jamestown/Union Camp

While the location and existing pattern of development has served as the rationale for their designation, each Activity Center proposed in the Land Use Plan has a distinct quality or character which suggests a recommended pattern for its future development.

Activity Centers represent opportunities to cluster future development into regional centers which serve the commercial services and retail shopping needs of current and future County residents. Each Activity Center should provide opportunities to establish a recognizable center of development with its own unique "sense of place" within the County. Future development form within each Activity Center should vary somewhat based on the existing pattern of development and the future development mix which occurs.

Each Activity Center, however, should generally evolve as a mixed-use regional center for residential, office, retail, and service development. Light industrial development may also be appropriate in some Activity Centers in the form of well-planned business and industrial parks. A brief discussion of each planned Activity Center reflects the unique character and the diversity of development form future growth might take as a function of its existing settlement pattern.

Benns Church Activity Center

Benns Church with its current mix of land uses and Historic St. Luke's Church as its focal point provides opportunities for creating a traditional "town scale" development form. Located at the intersection of Route 10 and Route 32/258 the basis is formed for evolution of a center with a traditional grid street system. Identification of a town center and public square or "green" would permit areas around it to be set aside for shops, offices, public buildings and homes. Such form of development would reflect the characteristics and qualities of traditional settlement in the County as evidenced in Smithfield and Windsor. Its location permits Benns Church to serve as a future "sister town" to Smithfield thereby reducing development pressure on the Town. Given Smithfield's lack of sewage treatment capacity and concern's of residents who value its historic qualities and features which could be threatened by intense development, the designation of Benns Church as an Activity Center fulfills an important role for both current and future residents of the County.

Bartlett Activity Center

The Bartlett Activity Center represents an opportunity to create a sense of place where little exists at the present time. Located at the heavily traveled intersection of Routes 17 and 258, this particular area is subject to high visibility and exposure due to traffic movement across the James River Bridge from Newport News. These features make it a likely site for successful commercial development by virtue of ease of access to neighboring jurisdictions. Its designation represents one of the major intersections of the County wherein a mix of uses could be developed over time. No existing development theme is presently established at Bartlett. Buildings either at the intersection or near the intersection are currently underused; however, the immediate intersection and areas surrounding the intersection lend themselves to development of a new Activity Center. This Center could provide for a mix of uses including office and commercial development as well as higher density residential development. Development of an Activity Center at Bartlett sharply contrasts with Benns Church in that no established theme or character would be built on, but rather one could be created that serves County resident needs.

Carrsville Activity Center

The Carrsville Activity Center located in the Southern Development Service District represents opportunities for long term fulfillment of its role of absorbing future development within the Route 58 corridor in the southern portion of the County. Significant amounts of new development in this area is not anticipated within the near term five-year planning period but is expected to occur beyond the five-year planning period concurrent with the extension of Hampton Roads Sanitary District Sewer Facilities through this corridor. As development occurs in the Carrsville area, it should respect the village character of development that is currently established in the area. While growth and development as an Activity Center will represent change in Carrsville, it is considered quite possible to absorb future development in the Activity Center denoted here without significant adverse impact on the quality of life enjoyed by existing Carrsville residents.

Jamestown Activity Center

The Jamestown/Camptown Activity Center represents opportunities for new development activities associated with future commercial and industrial growth in the southernmost area of the County. This area presently contains the Union Camp

facilities, the airport, commercial centers, and residential neighborhoods. An Activity Center in this location should accommodate future development of a similar or related nature. Industrial opportunities, in particular, would be suitable in this Activity Center when additional public facilities are provided (water and sewer). The location of this Activity Center provides the County the opportunity to guide future County growth in the southernmost part of the County.

Towns of Smithfield and Windsor

The incorporated Towns of Smithfield and Windsor, while having there own independent planning programs and objectives, have traditionally functioned as County Activity Centers. It is expected that, in the future, they will continue to serve as such. Adequacy and availability of Town public facilities and services and Town resident's objectives for how each community wants to grow will be the primary factors in determining the future role of these communities as Activity Centers within the County.

Planning for Activity Centers

Preparation of more specific plans for each County Activity Center should be undertaken by the County to better permit focus on how the qualities and form of their development may best be managed.

The function of these areas is to serve as centers within the Development Service Districts to concentrate higher density residential development and the associated commercial, employment, and public service functions necessary to provide a community character which represents a physical center and focus for growth.

Development standards for Activity Centers should be framed to establish a clear sense of distinct community character. Important features that should be included in the development of Activity Centers include mixed-use developments, pedestrian access, and greenways/bike paths linking various developments. A mechanism for the establishment of new Activity Centers as the need arises in the Development District is envisioned to assure a means of managing development form over time.

Standards for commercial and industrial development within Activity Centers should enhance the character of the community and create or reinforce a community theme.

In many areas, this will require re-development of vacant or underused buildings. Such a theme at Benns Church is one clearly related to County history.

Planned Unit Development Districts

Planned Unit Development Districts, although not shown on the Growth Management Plan Map, are established to provide for areas within the Development Service District where more intense residential and mixed-use development can be accommodated outside designated Activity Centers.

Rather than mapping each of their future locations in advance, Planned Unit Development Districts will be designated in accordance with performance standards to be structured in the County Zoning Ordinance. These designations will be limited to locations within the Development Service District where public benefits, in the form of highway improvements, provision of affordable housing, provision of parks, provision for sites appropriate for construction of schools or other needed community facilities, are provided as a part of the development approval process in exchange for higher densities. Threshold size and location requirements for their designation would also be framed in County ordinances to guide decisions concerning their location. Designation for sites as Planned Unit Development Districts should be determined on the basis of conditional zoning action whenever projects are evaluated and approval awarded to those development proposals which offer specific County or neighborhood benefits and/or a demonstrated capability to implement County Comprehensive Growth Management Plan objectives. Examples of objectives for which approvals might be granted include:

Type of Objective	Potential Methods of Achieving Objective
o Community Facilities	Approvals may be awarded for proximity to existing or developer provided facilities (i.e., sewer lines, schools, fire departments and recreation facilities).
o Transportation	The receiving road network must meet minimum standards for level of service or the facility must be upgraded to accept development. Approvals may be

	awarded for making improvements that are consistent with the overall Transportation Plan.
o Housing	Approvals may be granted for including affordable housing as a component of the Planned Unit Development.
o Economic Development	Approvals may be granted for development proposals that provide jobs which strengthen the economic base of the County. Evaluation would be based on the number and type of permanent jobs created.
o Historic Preservation	Approvals may be awarded if identified historic sites are preserved through easement or restored by the developer.
o Open Space and Parks	Approvals may be awarded if development is clustered and open space, parks and recreation facilities are provided.

While encouraging higher density residential development in portions of the Development Service District in exchange for developer proffers that provide public benefits, this concept does not encourage densities that are substantially higher or incompatible with surrounding neighborhoods. Moreover, development approval should not proceed absent proffers that provide substantial public benefits and demonstrated consistency with Plan objectives. Future development in existing residential or mixed use PUD Districts should be permitted to continue in the density and pattern for which respective subdivisions were designed at the time they were approved.

Furthermore, PUD District densities for new sites adjacent or near to established neighborhoods should be required to buffer the edges to minimize impacts to established neighborhoods. This approach acknowledges existing development patterns and recognizes historic development conditions.

In short, higher residential densities or mixed use development will be permitted only in such areas of the Development Service District where infrastructure in the form of sewer, water and transportation systems would not be adversely impacted or could be accommodated within a defined geographic cell. It is recognized that to permit

higher densities in many portions of the Development Service District would be disruptive of community character and the expectations of existing residents.

Rural/Agricultural Conservation District

The Rural/Agricultural Conservation District is intended to maintain and conserve rural character and farmlands in County areas consistent with Comprehensive Growth Management Plan objectives. Rural/Agricultural Conservation District land areas are intended to provide for a full range of agricultural and farming activities and related uses along with some low density residential development.

The conflicts between farming and rural non-farm development (residential) should be minimized as the needs of farming are acknowledged and non-farm development is accommodated as a subordinate use. When non-agricultural land uses extend into agricultural areas, farms often become the subject of nuisance suits. As a result, farms are sometimes forced to cease operations. Many others are discouraged from making investments in farm improvements. In recognition of the farmer's "right-to-farm" without being restricted by neighboring residential areas, hours of operation of farm equipment, restrictions on odor-producing fertilizers, and other restrictions designed to limit the perceived negative impacts associated with reasonable farming practices should not be imposed on farming activities within the Rural/Agricultural Conservation District. The general intent of the Rural/Agricultural Conservation District is to encourage farming and maintain rural qualities in areas so designated in the County.

Rural/Agricultural Conservation, as a component of the Comprehensive Growth Management Plan, is not limited to traditional farming but extends to all aspects of the County's rural character. Agricultural land refers not only to tilled fields, but also to open fields, pastures, and woodlands which are either prospects for additional farm acreage or are valuable as they are for their many contributions to the environment and to the rural appearance of the County. Agriculturally related or support industries (farm implement dealers, supply services, storage and processing facilities, etc.) should be permitted within this district in recognition of their important support of the farming community.

Residential Density

Residential development and density in the Rural/Agricultural Conservation District should be minimized to avoid future conflicts between farming activities and rural homes. Two options are recommended for residential density in the Rural/Agricultural Conservation District. A property owner or developer should be able to choose the option which best suits their needs and objectives. The first density option is based on a sliding scale approach. Using this option, density is determined by the size of the parcel. The second option provides property owners the incentive of higher possible densities if certain standards of rural residential development are met. These density bonus incentive standards include such conditions as; development clustering, visual enhancement to reinforce rural character, rural highway access controls, and restricting sensitive lands or agricultural lands with conservation easements.

Sliding-Scale Approach

Under this option, the base density for lots of 20 acres or less should automatically be one (1) dwelling unit per five (5) acres. One (1) additional lot should then be allowed for every additional 20 acres. A 100-acre parcel, for example, would yield eight (8) lots. This provision is based on the assumption that parcels of 20 acres or less do not typically constitute adequate land area for productive farming operations. The disadvantage of this approach is that it will most likely cause the creation of large lot subdivisions which are land consumptive and do not promote conservation of agricultural lands. To off-set this condition, property owners using the sliding-scale approach should be allowed to reduce lot sizes through limited clustering provisions.

Density Bonus Approach

As an alternative to the sliding scale approach, property owners can opt for higher densities in return for residential subdivision design which better achieves rural character and agricultural conservation objectives. Under this approach the base residential density in the Rural/Agricultural Conservation District should be one (1) dwelling unit per 10 acres, but may be increased to one (1) dwelling unit per eight (8) acres, or one (1) dwelling unit per five (5) acres if certain development standards are met as a condition of density increase.

Using this option, residential density in the Rural/Agricultural Conservation District should be determined as follows:

Base residential density of one (1) dwelling unit per 10 acres may be permitted provided:

1. Clustering of development on the site provides for all dwelling units and lots to be located within 50 percent of the total site area of the parcel.

2. The remaining 50 percent of the site should be permanently established as open space, either in farm or forest use, and restricted from further development through covenants or easements.

3. All residential lots created through the act of subdivision should be served by one point of access to County roads.

4. Residential structures in the subdivision should be located at least 100 feet from the existing County road right-of-way and screened from the right-of-way by an existing or planted landscaped buffer.

5. All residential structures should be setback at least 100 feet from all active farm operations.

6. A central water supply system should be developed.

Base residential density may be increased to one (1) dwelling unit per eight (8) acres if the following conditions are met:

1. Clustering of development on the site provides for all dwelling units and lots to be located within 40 percent of the total site area of the parcel.

2. The remaining 60 percent of the site should be permanently established as open space, either in farm or forest use, and restricted from further development through covenants or easements.

3. All residential lots created through the act of subdivision should be served by one point of access to County roads.

4. Residential structures in the subdivision should be located at least 150 feet from the existing County road right-of-way and screened from the right-of-way by an existing or planted landscaped buffer.

5. All residential structures should be setback at least 100 feet from active farm operations.

6. A central water supply system should be developed.

Base density may be increased to one (1) dwelling unit per five (5) acres if the following conditions are met:

1. Clustering of development on the site provides for all dwelling units and lots to be located within 30 percent of the total site area of the parcel.

2. The remaining 70 percent of the site should be permanently established as open space, either in farm or forest use, and restricted from further development through covenants or easements.

3. All residential lots created through the act of subdivision should be served by one point of access to County roads.

4. Residential structures in the subdivision should be located at least 200 feet back from the existing County road right-of-way and screened from the right-of-way by an existing or planted landscaped buffer.

5. All residential structures should be setback at least 100 feet from active farm operations.

6. A central water supply system should be developed.

Through the clustering approach, the developer is able to decrease lot sizes in return for setting aside permanent open space. This provides many benefits including lower land costs for the lot purchaser and decreased road construction costs since lots are grouped together as opposed to scattered throughout the site. The community benefits through provision of open space, farmlands and rural character. Despite smaller lot sizes, the overall density of the subdivision remains unchanged.

Using this approach, a property owner with a 100-acre farm can create up to 20 lots (one (1) dwelling unit per five (5) acres) provided they are clustered onto 30 acres of the farm and the remaining 70 acres would be left for farming or open space. The homes would also have to be setback 200 feet from the County road and located on a single access road with driveways. Numerous individual drives onto County roads would not be allowed. The homes would have to be screened from County roadway view, thereby protecting rural character. Homes would also have to be setback from active agricultural operations in order to minimize farming impacts on home sites.

The same scenario on a 40-acre property would yield eight lots on 12 acres and would leave 28 acres in open space or farming. Average lot size for lots on both the 100 and 40 acre parcel would be 1.5 acres.

The open space land could be left in its natural state or maintained for farming or forestry purposes. Control of the open space land can be left with the original property owner or dedicated to a homeowners association. Regardless of which density determination option is used, the base density of a parcel or tract should be calculated on the amount of "net-buildable" land present. Land areas encumbered by natural development constraints such as wetlands should not be included in the base density calculation of a tract. Minimum lot sizes for clustered development in the Rural/Agricultural Conservation district should be a function of soil suitability for septic tank systems.

The above described residential density provisions recognize that while rural character and agricultural conservation are important County objectives, there remains a need to allow farmers and rural property owners to subdivide and sell single-family home lots as the need arises. The Plan recommends that rural residential subdivisions be directed to areas of the Rural/Agricultural Conservation District which have good proximity to existing residential areas and commercial and public services. Rural residential subdivisions should not be encouraged in remote areas where County roads are not adequate for increased traffic or in areas where existing agricultural activities predominate, such as in or near the County Voluntary Agricultural and Forestal Districts.

The Rural/Agricultural Conservation District is therefore provided in the Comprehensive Growth Management Plan to preserve rural character and open space, to foster agricultural activities and opportunities, and to protect valuable natural resources. It is further intended to prevent premature urbanization in areas where public utilities, roads, and other public facilities are planned to meet rural needs only and where present public programs do not propose infrastructure suitable for development at higher densities.

Community Centers

Within the Rural/Agricultural Conservation District there are several existing villages and crossroad settlements which perform a number of important community functions. These include serving as centers for rural residential development and providing for commercial services for surrounding rural areas. The ability of these Community

Centers to accommodate some portion of the future growth of the County is a function of their location and the existing scale of development and range of services provided to surrounding rural areas. Characteristics common to most of these rural Community Centers are the existence of homes, post offices, country stores, agricultural supply operations, home occupations, and structures which house public facilities or civic organizations (e.g. fire hall, church, etc).

The concept of the Community Center is included in the Comprehensive Growth Management Plan in order to recognize and provide for the special needs of these rural centers. These centers include such places as Rescue, Battery Park, Zuni, Walters, Isle of Wight Courthouse, Rushmere, Orbit, Central Hill, and Wills Corner. These Community Centers are often very different in size, character, and function; however, each serves an important role to the surrounding area.

These rural service centers serve a multitude of functions in Isle of Wight County. They range in scale from a fork in the road where a general store and beauty parlor are located, to a rapidly expanding community that is beginning to emerge as a service center of regional scope. Their distribution throughout the County is shown on the Growth Management Plan Map. Many have historic qualities such as Isle of Wight Courthouse which suggests future development should be limited in scale and compatible in character.

In spite of their unique individual qualities, these settlements share much in common, and collectively they play an important part in Isle of Wight County life. In general, these Community Centers tend to be basically residential in character, but also often offer some employment through limited commercial services as well as public or institutional uses. In general, the Community Centers are areas which function as rural service centers. The County should preserve and enhance the present character of the Community Centers in order that they may continue to serve their traditional roles in County life.

In the future it is possible that additional Community Centers might be identified. However, their future designation should be a function of their need to serve as service centers in the context of their existing distribution in the County. These

new Community Centers should be limited to providing the most basic commercial services for the convenience of the rural population.

Generally, the areas shown as Community Centers should:

- **Remain small in population size.**
- **Remain small in physical area.**
- **Should continue to provide limited, highly localized commercial services (such as a gas station or general store, etc.).**
- **Should continue to provide limited employment opportunity.**
- **Have a population density which is greater than the surrounding rural areas which they serve.**
- **Maintain a unique "sense of place" as identified by their existing character, scale, density, and architectural style.**

The need for central water and sewer is not anticipated in the Community Centers. However, in Community Centers where land application of waste water is a feasible treatment technology (i.e. soils are potentially suitable), these systems can allow greater clustering of residences and opportunities for commercial use. In order to assure the continued small size of the Community Centers, any central water or sewer system which is eventually provided should be built to serve land area and development only within the immediate proximity of the Community Center itself and not extend into adjacent rural areas.

The following are descriptions of the County's existing Community Centers.

Rescue

This coastal village located on the east side of Jones Creek approximately one-half of a mile from its mouth, is primarily a commercial dock for watermen engaged in fishing and oystering. The community began as the subdivision of a farm in 1882. It soon became a thriving harbor due to its location and natural features. Rescue continues to retain the character of a close-knit rural fishing village and the integrity of this character should be protected. The community contains homes, a post office, and general store.

Battery Park

Since 1692, when it was known as Pates Field and designated by the General Assembly as a port of entry for the collection of custom and the public warehousing of tobacco, Battery Park has continued to thrive. The village got its name from the rows of defense batteries placed there during the Civil War. Before the construction of the James River Bridge, Battery Park had a steamboat dock with daily trips to and from Newport News. Oystering has traditionally been the major industry of the community with as many as three-fourths of its residents engaged in the business shortly after the turn of the century. Battery Park, like Rescue, has a distinct character which should be preserved. The community currently contains homes, a post office, and church. Opportunity exists for development of a general store to supply community residents.

Zuni

This farming community is located seven miles west of Windsor near the Southhampton County border along Route 460 and the Norfolk and Southern Railroad corridor. As a result of the excellent farmland in the surrounding area, Zuni has traditionally had a large peanut market and at one time a peanut factory. The Zuni Community Center has potential for development given its access to rail and highway transportation and proximity to the Blackwater River. However, care should be taken to preserve the rural character of the community and development should be focused rather than stripped along Route 460. As one of the gateways to the County, it is important that the form and appearance of new development in Zuni be controlled to ensure an aesthetically pleasing and functional community which allows for the safe and efficient movement of traffic along Route 460.

The community has several abandoned buildings at the community center which represent opportunity for redevelopment and rehabilitation. Existing land uses include; homes, post office, dentist office, restaurant, thrift shop, gun shop, and convenience store/gas station.

Walters

This community, located on Route 258 approximately halfway between Windsor and Franklin, is predominantly farm-oriented although many residents commute to Union Camp and other employment centers. Future development in Walters should minimize

direct, individual access to 258 to avoid excessive entrances and exits which would impede the smooth flow of through traffic and create potential hazards. There are presently several vacant commercial structures in Walters which represent opportunities for commercial redevelopment and rehabilitation.

Isle of Wight Courthouse

As the location of the County Court House and office complex, Isle of Wight differs from other Community Centers in the County. The significant weekday activity created by the government center, as well as Isle of Wight Academy, a post office, and an insurance office coupled with the lack of a large residential base creates a community that is truly unique within the County. Businesses and services such as restaurants and offices which would support this daily activity should be encouraged in this area. However, the form and appearance of such development should be controlled to ensure compatibility with the historically significant structures of the area. New residential development should be encouraged but should be guided into a village form rather than stripped along route 258. As the County seat, Isle of Wight should be given special consideration and attention to ensure it will remain a source of pride for County residents.

Rushmere

As a northwestern gateway to the County on Route 10, the Rushmere community is an important area which requires careful consideration in terms of land use. The community has traditionally been home to many watermen who conducted their activities from Tyler's Beach Marina. Tyler's Beach remains an important harbor for watermen from throughout the region. As in other communities located along primary highways, new development should be guided to areas off of Route 10 to create a more centralized and cohesive community and avoid the problems associated with strip development.

In recent years there has been a growing interest in development within the Rushmere community. A new Fire Station has recently been constructed. Several small commercial operations presently exist to serve the surrounding area.

Orbit

This community is located along Route 637 at its intersection with Route 605. Orbit has traditionally functioned as a rural farming community. Commercial development potential should be limited to providing services to rural residents and farmers throughout the eastern and middle portion of the County. The community presently contains only a few homes, a general store/gas station, and an established airfield.

Central Hill

This primarily residential community is located along Route 637 one and one-half miles west of Route 258. The only existing commercial activity is a general store/gas station although there are some farming support services located less than a mile west of the community. There is a potential for some limited commercial development in the area to provide essential goods and services for Central Hill residents as well as other County residents in surrounding rural areas. There may also be opportunity for development of additional farm service and supply businesses in this Community Center.

Wills Corner

The Wills Corner Community Center is located on Route 10 and the Suffolk line. This small community presently contains a general store and a few residences. Wills Corner also serves as a gateway into the County. Its future development should compliment this role.

Future development and redevelopment in County Community Centers should provide for commercial expansion while preserving the community's rural character. Commercial development in Community Centers should be designed to be compatible with rural settings. New buildings should be rural in character, should respect the architectural character of existing buildings, and should be built with setbacks and building lines similar to other existing buildings, In addition, the use of natural materials such as brick, stone, wood siding and slate should be encouraged as opposed to galvanized metals, exposed concrete, plastics, or vinyls. Procedures should be adopted to ease the procedure for converting existing homes into commercial uses in order to encourage small commercial development serving agricultural, neighborhood, and tourist needs.

The Plan recommends that specific planning and design studies be undertaken by the County for the future development of each of these Community Centers.

Neighborhood Conservation Districts

Neighborhood Conservation Districts, which are not pre-mapped on the Growth Management Plan Map, are established for residential subdivisions that have already been developed in the County, including Carrisbrooke, Sandy Mount Manor, Gatling Point and many others. It is here that established densities may be inconsistent with those recommended for future development patterns. The Plan proposes a series of Neighborhood Conservation Districts to provide special treatment of these existing development conditions.

Creation of the Neighborhood Conservation District component of the Growth Management Plan minimizes the concerns of existing property owners regarding the impact of new plans and ordinances which will shift the future direction and location of development in accordance with objectives contained herein. It should help to allay concerns about the application of future development standards applying to existing residential areas. Future in-fill development in the Neighborhood Conservation Districts should be permitted to continue in the density and pattern for which respective subdivisions were designed at the time they were approved. This approach acknowledges existing development patterns and respects historic development conditions.

Designation of specific Neighborhood Conservation Districts should occur during the comprehensive rezoning procedure scheduled to follow the adoption of this Plan. Implementation of the Neighborhood Conservation District concept should be accomplished through mapping of existing larger County subdivisions and incorporation into the overall County Zoning structure. The text of the County Zoning ordinance should be revised to permit their continued development and prescribe standards for protection of these existing residential neighborhoods.

Highway Corridor Districts

The Highway Corridor District is intended to address architectural and aesthetic controls as well as special access and buffering requirements along the County's

major highways. Designated Highway Corridor Districts are shown on the Comprehensive Growth Management Plan Map.

The Highway Corridor District is an area within which certain specific public objectives relating to aesthetics and architectural plan review should be administered by the County through overlay zone regulations in the Zoning Ordinance. Views afforded to drivers and passengers, whether residents, workers or visitors, traversing the major transportation routes of Isle of Wight County provide a lasting visual and, therefore mental, impression of the County's character. Although the visual experience probably forms only a small part of a person's overall experience in the County, it, nevertheless, is of special public concern and requires public attention if the County's image is to be a positive one now and in the future.

Not all development in Isle of Wight County requires the same level of public scrutiny. The most critical visual areas lie along the major transportation routes since they are shared by all citizens and tourists. Hence, corridors of 500 to 1000 feet from the right-of-way of the major transportation route rights-of-way are identified for application of special landscaping and design standards.

The visual character today along these corridors is diverse, ranging from areas primarily rural, natural, and scenic to areas with disorganized and cluttered roadside development. The intent of the objectives for the Highway Corridor District is not to preclude the diversity that already exists; but, rather to encourage and better articulate the variety of visual experiences along the current highways as well as along the corridor of the proposed future routes for the County's major roads.

The purpose of the Highway Corridor District is to protect and improve the quality of visual appearances along these linear corridors and to provide guidelines to ensure that buffering, landscaping, lighting, signage, and proposed structures are internally consistent and of a quality which contributes to County character.

Future development of lands within the Highway Corridor District should be subject to the standards of the particular base zoning district in which they occur, as well as the following standards that are specific to the Highway Corridor District. These standards are not intended to restrict or prevent the construction of buildings within

each Corridor, nor to require the removal of existing structures. The Highway Corridor District standards are not setback requirements, although certain minimum setbacks will be required to protect highway rights-of-way and maintain sight clearances for traffic safety.

The corridors along the following routes for a distance of 500 to 1000 feet from the right-of-way are designated as Highway Corridor Overlay Districts:

- Route 17
- Route 10/32
- Route 258
- Route 460
- Route 58

Other routes may be established in the future as determined appropriate.

Standards specific to the Highway Corridors should provide for:

- Increased buffering requirements, which provide for a mix of canopy, understory tree and shrub level plantings, to partially screen buildings and parking areas from view.
- Special standards for signage height, design, size, materials, and lights to maintain and enhance visual qualities.
- Special consideration of new development within this district including assessment of visual impact of development, assessing pre-development visual conditions and how the proposed development will affect them.
- The review of projects in the Highway Corridor will acknowledge the existing villages as integral to the unique visual character of the corridor.
- Landscaping to be used to soften lighting and signage impacts and to be located in groupings to identify entrances to sites.
- Use of Service roads as a tool to achieve access control within the Highway Corridor District.
- Use of reverse lot frontage concepts to shield off-street parking area behind buildings and landscaping.
- Designation of scenic easements along Highway Corridors with significant natural views or vistas.

Resource Conservation Districts

The County's growth management objectives indicate that special emphasis should be placed on the preservation of natural resources, sensitive natural areas, and

waterfront areas. Given the exurban Hampton Roads development pressures, there will likely exist an almost unlimited demand for waterfront homesites in the County. Without a firm commitment to preserve the natural beauty and environmental resources in these areas, the County could find these important natural assets exploited.

The Growth Management Plan Map therefore designates land areas along all shoreline and tributary streams of the County as the Resource Conservation District. These areas include tidal and non-tidal wetlands which are adjacent to shorelines and tributary streams as well as floodplains, stream valleys, steep slopes, and soils with development constraints.

The Resource Conservation District should include "Resource Preservation Areas" (RPAs) and "Resource Management Areas" (RMAs) as defined by the recently adopted Chesapeake Bay Preservation Act. The Preservation Act affects all drainage areas of the County which impact Chesapeake Bay water quality. RPAs must include: tidal wetlands, non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams; tidal shores; and a vegetated buffer located adjacent to and landward of the above listed features. RMAs must be provided contiguous to the entire inland boundary of the RPA. The following land categories should be considered for inclusion in the RMAs: floodplains; highly erodible soils; highly permeable soils; non-tidal wetlands not included in the RPAs.

As per State requirements, the County will prepare a Shoreline Area Management Plan as a subsequent amendment to this Plan. The Shoreline Area Management Plan will contain policies for water quality protection in RPAs and RMAs and will recommend land use regulatory approaches designed to improve Bay water quality.

The Plan's Resource Conservation District contains environmentally sensitive land areas both within the Chesapeake Bay watershed as well as the Blackwater River and other County watersheds which drain elsewhere besides the Bay.

In most cases only passive recreation use and low density residential development is appropriate in the Resource Conservation District provided development design is protective of environmentally sensitive features.

The qualities of Isle of Wight's natural resources are an important component of the County's heritage and a major factor influencing the County's continued economic and environmental well being.

Major areas of the County in the Resource Conservation District include: The James River and Blackwater River, Pagan River and Jones Creek shorefront, and the man-made reservoirs such as Lake Burnt Mills and Western Branch. This is not to suggest that these are the only areas of the County where resource conservation should be practiced, but rather, these are areas where the largest concentrations of environmentally sensitive features exist. Wherever resource constraints are present, development proposals should be carefully reviewed and mitigation measures prescribed.

Performance standards for development within areas designated Resource Conservation districts should be framed to implement protection policies. Such policies or standards should provide that:

- No development be permitted on slopes exceeding 25 percent where soils are unsuitable.
- Development in floodplains should be limited and responsibly managed
- Clearing of woodlands and forests should be minimized to the extent possible.
- In general, only very limited low density residential development should be permitted in these areas of the Resource Conservation District which are developable.
- When development does occur in the Resource Conservation District, all environmental impacts should attempt to be avoided and in cases where impacts do occur, mitigation measures should be employed.
- The State and private conservation organizations should actively pursue programs to purchase and/or acquire easements for privately owned lands in the Resource Conservation District so they can be preserved.

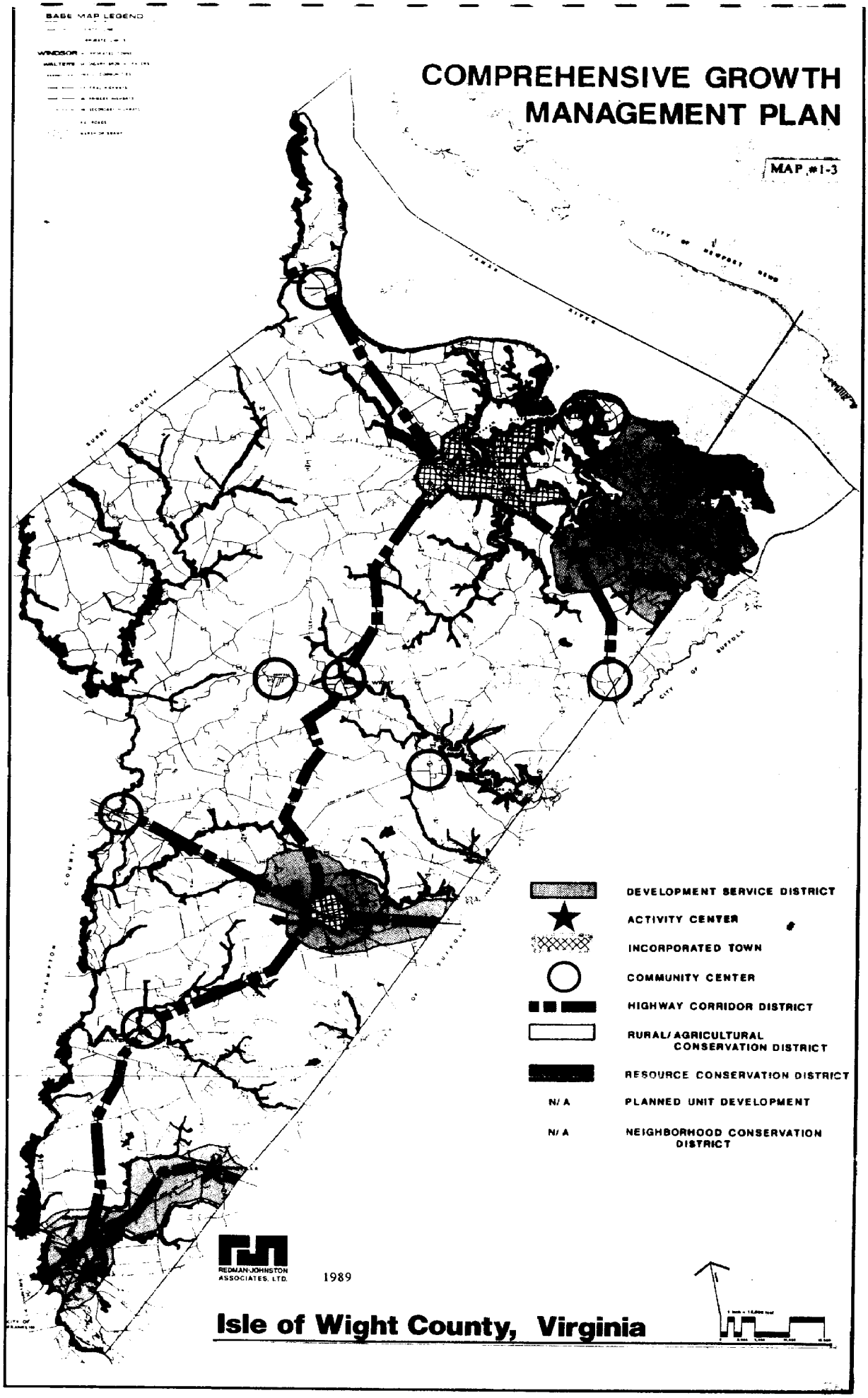
Growth Management Plan Concept: Summary

The Growth Management Plan Map represents the cumulative application of the districts described earlier in this section. The map is in reality the result of an

"overlaying" of eight separate maps, one representing each of the eight concepts. Whenever conflicts develop as to which category of use should apply, the more specific or highly restrictive category should govern policy. For example, the Resource Conservation District is the most restrictive and therefore would provide the overriding policies in the area where it is applied.

To reiterate, the basic intent of the growth management concept is that the County channel most of its future residential, commercial and industrial development into and around the Development Service Districts, Activity Centers, Planned Unit Developments, and Community Centers, and should preserve lands in the Resource Conservation and Rural/Agricultural Conservation Districts. Existing residential neighborhoods should be recognized and protected within Neighborhood Conservation Districts. The aesthetic and functional characteristics of major County roads should be preserved within the Highway Corridor Districts. The location of the districts will serve as the basis for County structuring of zoning classifications with the intent and purpose to frame land use controls and performance standards for development consistent with each Growth Management Plan District.

Past development in Isle of Wight County has had negative consequences. Farmlands, open space, natural areas, and rural character have been depleted. The costs of providing services to such development is high. The Growth Management Plan proposes to guide development to those undeveloped areas where major public facilities are in place or planned, while reducing development pressures in those areas where facilities cannot be provided as efficiently. The Plan channels anticipated future growth into a more harmonious and efficient pattern which is consistent with community goals and objectives.


BASE MAP LEGEND
WINDSOR
COMPREHENSIVE GROWTH MANAGEMENT PLAN
MAP #1-3
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY COUNTY
SOUTHAMPTON COUNTY
CITY OF SUFFOLK
DEVELOPMENT SERVICE DISTRICT
ACTIVITY CENTER
INCORPORATED TOWN
COMMUNITY CENTER
HIGHWAY CORRIDOR DISTRICT
RURAL/AGRICULTURAL CONSERVATION DISTRICT
RESOURCE CONSERVATION DISTRICT
N/A
PLANNED UNIT DEVELOPMENT
N/A
NEIGHBORHOOD CONSERVATION DISTRICT
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Chapter 3

Rural Character

and Agricultural Preservation

Chapter Three: RURAL CHARACTER AND AGRICULTURAL PRESERVATION

Introduction

Agriculture is a significant part of Isle of Wight County life, both as a major industry and as a contributor to the County's rural character. The sense of agriculture and rural character is prevalent throughout the County. All of the County's past comprehensive planning efforts have cited agricultural and rural character preservation as a specific goal. In light of increasing growth , many County residents (both farmers and non-farmers) continue to see clear benefits in preserving both the agricultural industry and rural character of the County. Residential growth for the urban areas of the region and generally declining farm economies have been primarily responsible for the loss of productive County agricultural lands and some of the rural character of the County.

By better managing the form of future development in the County, Isle of Wight can make significant strides to protect and preserve the agricultural industry and the rural character of life which is so important to all County residents. Establishing a balance between providing for future growth and maintaining the agricultural industry and rural character is a primary objective of this Plan.

Farm Trends and Information

The number of farms in Isle of Wight has decreased between 1982 and 1987. In 1982 there were 333 farms in the County and in 1987 the number was 245, a net loss of 88 farms or about 26 percent during the five year period. Correspondingly, the total amount of farm land within Isle of Wight has also decreased in recent years, from 100,415 acres in 1982 to 85,501 acres in 1987. This represents a net loss of 14,914 acres or about 15 percent. The average size of farms in Isle of Wight increased during the five year period, from 302 acres in 1982 to 342 acres in 1987. This represents an increase of 13 percent in average farm size (Figure 3-1).

FIGURE 3-1

ISLE OF WIGHT
GENERAL FARM STATISTICS
1982-1987

	1982	1987	Change	% Change
Number of Farms	333	245	-88	-26.4%
Land in Farms (acres)	100,415	85,501	-14,914	-14.9%
Average Farm Size (acres)	302	342	40	13.2%
Farms By Size				
1-9 acres	20	14	-6	-30.0%
16-49 acres	49	39	-10	-20.4%
50-179 acres	104	55	-49	-47.1%
180-499 acres	96	77	-19	-19.8%
500-999 acres	45	38	-7	-15.5%
1,000 or more acres	19	22	3	15.9%

Source: 1987 Census of Agriculture - Area Data

Between 1982 and 1987 the number of farms in all size categories decreased except for farms of 1,000 acres or more which increased by three, from 19 in 1982 to 22 in 1987. The most significant decrease in number of farms occurred in the 50-179 acre category. During this recent five year period the number of farms 50-179 acres decreased from 104 farms in 1982 to only 55 farms in 1987. This represents a significant decrease of about 47 percent.

Loss of total and harvested cropland in the County has been substantial in recent years. Between 1982 and 1987 total cropland decreased 6,714 acres or about 10 percent and harvested cropland decreased 13,754 acres or about 23 percent. In 1982 approximately 92 percent of County cropland was harvested. In 1987 only about 79 percent of the total was harvested. Drought conditions in recent past years account for much of the decrease in harvested cropland.

FIGURE 3-2

ISLE OF WIGHT
CROPLAND
1982-1987

	1982	1987	Change	% Change
Total Cropland	64,057	57,343	6,714	-10.5%
Harvested Cropland	59,092	45,338	13,754	-23.3%
Percentage Harvested Cropland to Total Cropland	92.2%	79.1%	-13.1%	--

Source: 1987 Census of Agriculture - Area Data

The above described trends indicate that the County is losing farms, especially smaller farms, and farmland in general at a significant rate. The loss of farms and farmland is due in part to development and also to difficulties within the farm industry itself resulting from higher operating costs, variable adverse climatic conditions, and generally lower profits. The net result is that many farmers who have been operating on a marginal basis are quitting the industry and those farmers who are staying in are having to farm larger land areas to produce profitable yields. In addition many older farmers are retiring and their children are not interested in keeping up the farm for financial reasons and otherwise.

The Agricultural Industry

Despite recent losses in farmland, Isle of Wight County continues to have a strong and diverse agricultural industry. The County still ranks second or third among Virginia Counties in corn and peanut production and has a large swine production industry. In 1987 production of peanuts, corn and swine accounted for approximately 82 percent of the $36 million value of all agricultural products in the County (Figure 3-3).

FIGURE 3-3

ISLE OF WIGHT
COMMERCIAL AGRICULTURE
1987

Product	Acreage or Unit	Dollar Value
Peanuts	15,006 acres	$ 13,925,568
Corn	25,000 acres	$ 8,593,750
Swine	75,000 head	$ 7,200,000
Other[1]	--	$ 6,512,750
TOTAL	--	**$ 36,232,068**

Source: 1987 Census of Agriculture - Area Data

[1] Other includes soybeans, small grains, beef/dairy/sheep, poultry, industry, miscellaneous horticulture, watermelons, sweet potatoes.

Processing pork and pork products is a major business in Isle of Wight County; however, it is estimated that 80 percent of the hogs commercially processed at Smithfield Foods is imported from other states, principally from the midwest. Smithfield Packing, in an attempt to streamline and integrate operations, is currently implementing a strategy to raise more of their own hogs locally instead of importing the majority of their livestock from the midwest. The company is planning to build 100 hog farms within a 30 mile radius of its Smithfield plants. This will mean a large increase in swine production for Isle of Wight and surrounding counties.

Equally important to the crop and livestock production characteristics of the County are the support services provided by local agribusinesses. Agribusiness includes all the service, manufacturing and trade operations that directly relate to the cultivating, harvesting, production and marketing of farm products. These would include farm and implement dealers, farm supply operations, manufacturing of food and kindred products, as well as storage and exporting of raw and processed foods. The value of agribusiness in Isle of Wight County is extremely significant. In recent

years, declining farm economies in the County have strained local agribusinesses. This is important to note because without farms, local agribusinesses suffer, and without local agribusinesses, local farmers find it increasingly difficult to operate efficiently. In 1985 there were approximately 14,000 agribusiness jobs in Southeastern Virginia which were directly dependent upon the agriculture industry of the region. Approximately 3,000 of these jobs were located in Isle of Wight.

Combined with the County's approximate 225 full-time and part-time farmers, the agriculture industry directly creates an estimated 3,225 jobs in Isle of Wight, making agriculture and agribusinesses the largest employment category in the County.

Timber and Forestland

Another important component of the agricultural economy of Isle of Wight is the timber industry. 117,326 acres in Isle of Wight are timberland. This area represents about 57 percent of the County's total land base of 204,454 acres. The forest industry owns about 25,850 acres of timberland in the County. Farmers own 62,305 acres of timberland or about 53 percent of total County forestlands. The remainder of County timberlands is owned by city/state/federal agencies, non-timber oriented corporations, and individuals. Southeastern Virginia is one of the top lumber producing areas in the state, with loblolly pine as the primary resource. While farmland has traditionally been producing only marginal incomes for agricultural crops, pine plantations can yield favorable long-term financial returns.

There are many ways to look at the economic importance of timber and forestlands. Employment, value added, and stumpage, or worth of standing timber, are but a few traditional components. The economic importance of this industry is expanded as the raw material leaves the forest, is transported to primary and secondary manufacturers, to wholesale and retail outlets, and finally into the hands of the consumer.

Research has shown that every one dollar of standing timber (stumpage) acquired from a Virginia landowner generates $28.41 in economic activity. According to the 1987 statistics on Forest Products, Isle of Wight County generated more than $2.78 million of stumpage income to landowners. This would indicate more than $78.9 million in value added to the economic activities for the State of Virginia.

A recent University of Virginia publication, Leading Virginia Industries, Wood and Paper Products, provides some interesting employment data. While employment across all Virginia manufacturing industries grew 13.9 percent between 1975 and 1985, the lumber and wood products sector employment grew 15.2 percent and in the paper and allied products sector 23.3 percent. Employment in the forest products sector exceeds all other manufacturing sectors of the state economy, employing one in seven Virginia manufacturing employees. The largest single employer in Isle of Wight County is Union Camp, a paper and woods products manufacturer.

Ecologically, the forestland helps to maintain water quality, provides essential habitat for a variety of plants and animals, and provides needed windbreaks to prevent soil erosion.

Between 1975 and 1985 the County lost over 5,500 acres of productive forestland to other uses. Due to the valuable economic and ecological benefits provided by forestlands, it is important that Isle of Wight conserve and manage this important natural resource.

Existing County Agricultural Preservation Efforts

Virginia's farmland taxing policies provide that property being farmed is assessed and taxed at farm property values. Farmland in the County has an assessed value which is considerably lower than land used for industrial, commercial, and residential uses. Because of greater differences in land valuation, the Farmland Assessment Law serves as a subsidy to farmers in the form of lower taxes. The primary purpose of this taxing structure is to help farmers hold onto their land as development pressures and property values increase.

Isle of Wight has established four separate Agricultural Districts throughout the County (Map 3-1). Farmers enter into these districts on a voluntary basis. A total of 27,175 acres of farmland are presently contained in the following Agricultural Districts: Longview Agricultural District, 7,585 acres; Mogarts Beach Agricultural District, 606 acres; Knoxville Agricultural District, 3,888 acres; and Courthouse Agricultural and Forestal District, 15,096 acres. Approximately 32 percent of the County's total farmlands are contained within these Agricultural Districts.

To enter into an Agricultural District the farmer volunteers to sign a contract with the County stating that they will not develop their land for a period of eight years. Contracts for Agricultural Districts are subject for renewal at the end of the eight year period subject to the farmer's consent. Different districts are in effect for different time periods. For example, the Mogarts Beach District contracts extend from 1982 to 1990 and the Courthouse District contracts extend from 1988 to 1996. Farmers in any district can petition the Board of Supervisors to be released from their contracts and withdraw from a district at any time during the eight year period. At the end of an eight-year contract the farmer can withdraw from a district automatically.

By entering into a voluntary Agricultural District, a farmer does not receive any additional preferential tax treatment. Inclusion in a district does, however, provide some limited assurance that neighboring farms, also in the district, will not subdivide and develop their farms.

Residential subdivisions in agricultural areas often create conflicts with farming activities and practices. Residential property owners sometimes complain about farm equipment traffic on local roads, noise associated with evening operation of equipment and machinery, creation of dust and odors resulting from farm activity, spraying of pesticides and insecticides, etc. Farmers in the voluntary Agricultural Districts are provided some protection against nuisance suits which may be initiated by residential property owners within the districts. In essence, these residential property owners are put on notice that they are living in an agriculturally dominated area and that they can expect reasonable farming activities to occur around them. This provision allows the farmer to conduct normal agricultural activities without the fear of legal action by residential neighbors.

There are provisions in the County for creation of additional Agricultural Districts to be formed subject to the interests of local farmers.

Issues

The following is a list of important rural character and agricultural preservation issues identified in Isle of Wight.

- Existing County development regulations and programs are not effective in deterring residential sprawl or in preserving agricultural lands and forestlands in rural areas of Isle of Wight.

- Rural land subdivision and development is creating a loss of farms (especially smaller farms), farmland, forestland, open space, and rural character.

- Because farming is decreasing in the County, local farm supply and implement businesses are negatively impacted.

- Current patterns of rural residential subdivision are creating incompatibilities between residences and agricultural operations. This impedes traditional farming activities and creates a disincentive to continue farming.

- Rural character is being diminished by strip forms of development along rural roads and highways.

- The ability of rural roadways to handle traffic safely and efficiently is being diminished as sprawl development occurs and numerous access drives are constructed along road frontages.

- Public services and facilities in rural areas are being overtaxed by recent trends of rural residential development.

- Increasing development pressures in rural/agricultural areas are creating disincentives to continue farming.

- Existing rural community centers are loosing their traditional character as new development occurs in and around them.

Goals and Objectives

The following goals and objectives are established to address the above described issues relating to rural character and agricultural preservation.

The overriding County goal is:

To preserve the rural character of the County and preserve forestland and agriculture in areas outside of established Development Service Districts.

Specific objectives which should achieve this goal are:

- To maintain open space throughout the County.

- To limit suburban sprawl and foster alternative forms of rural development which preserve agricultural lands and forestlands and enhance rural character.

- To limit future development in rural areas of the County where public facilities and services are not in place and direct the majority of future growth to those

areas of the County where services and facilities are either already adequate or could be constructed efficiently.

- To discourage strip development along rural roads and highways for efficiency and safety purposes, and also to preserve rural character.
- To maintain the existing character of rural Community Centers as development occurs.
- To preserve the County land base of productive agricultural soils in rural areas for farming.
- To manage and maintain forestland resources in the County.
- To minimize the conflicts which can occur between farm activities and residential development.
- To provide opportunities for agricultural support services/businesses in rural areas in order to foster continued farming operations.

Implementation Recommendations

The County should revise its Zoning Ordinance to create a Rural/Agricultural Conservation District which corresponds with the area designated as such on the Growth Management Plan Map. Permitted uses should include agricultural activities, agricultural support businesses, and limited residential development. Residential development should occur at densities prescribed in the Growth Management and Land Use Chapter. The County should encourage clustered forms of rural residential development with provisions for open space which could remain as permanent agricultural lands, forestland, or open space. Access to rural cluster subdivisions from public roads and highways should be limited. Rural subdivisions should be screened from view of rural public roads and residences should be adequately setback from active agricultural operations.

The County should adopt "right-to-farm" provisions for the Rural/Agricultural District which protect farmers from legal actions proposed by residential property owners within the district.

The County should encourage expansion and addition of voluntary Agricultural and Forestal Districts throughout rural areas.

The County should not extend public services and facilities into rural areas and instead should concentrate their provision within Development Service Districts.

The County should participate directly or encourage rural property owners and farmers to participate in State programs designed to foster conservation of land resources. These include the following:

- Division of Soil and water Conservation, Agricultural Cost-Share Program.
- Division of Soil and Water Conservation, Conservation Easements Program.
- County Extension Service Programs.
- Virginia Natural Heritage Program, Dedication of Natural Area Preserves.
- Department of Forestry, Forestry Management Assistance.

The County should adopt zoning provisions which will allow for the orderly growth and development of rural Community Centers. These centers should retain their traditional village character as they develop into service centers for surrounding rural areas. Development standards should be adopted which ensure orderly growth which is compatible with existing character. Recommended development standards for Community Centers are contained in the Design Chapter of this Plan.

Summary

Rural residential development trends are presently resulting in a loss of County agricultural and forestlands. This suburban sprawl results in a loss of open space and rural character. It is also extremely inefficient to provide with public facilities and services. Loss of agriculture and forestland has serious direct and indirect impacts on the economy of Isle of Wight. One of the County's major goals is to preserve agriculture, forestland, open space and other natural features which contribute to Isle of Wight's pleasant rural character and quality of life.

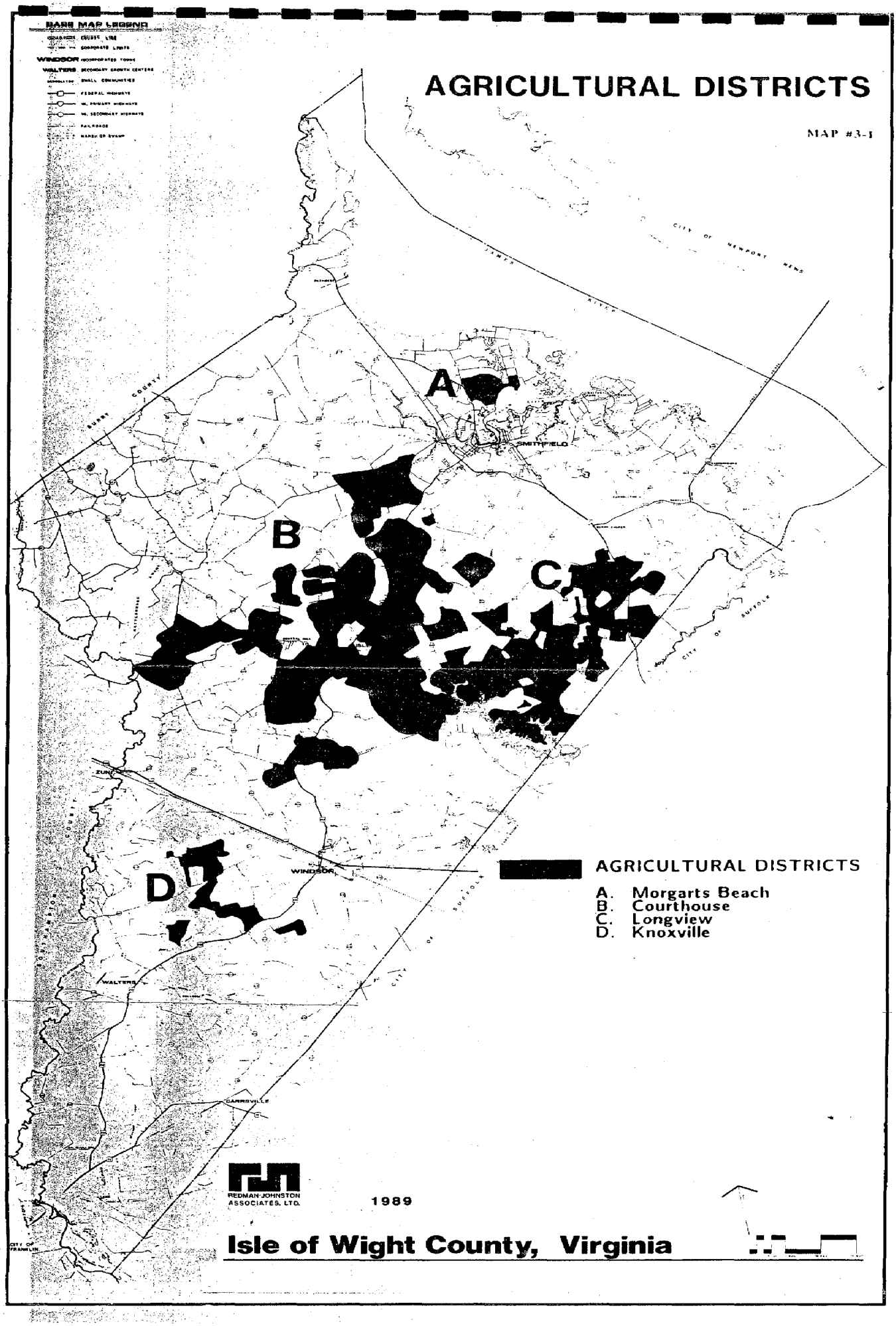
In order to accomplish this goal, the majority of future County growth should be directed away from rural and agriculturally dominated areas and instead be guided to designated Development service Districts where adequate public facilities and services are in place or proposed. Residential development within the Rural/Agricultural District should be limited in order to forestall incompatibilities, conflict, and competition between agricultural and residential land uses. The County should encourage low density rural residential development to occur in clustered form in

order to preserve agriculture, forestland, open space, roadway capacity, and rural character. Future development of rural Community Centers should respect these area's traditional character and function as local service centers for surrounding rural areas. Changes should be made to the County development regulations to better manage the type, density, and form of development in Isle of Wight's predominantly rural and agricultural areas.

While local County government cannot do much to directly improve agricultural economies, it can indirectly assist the industry by ensuring that the land base for farming and forestry activities is wisely conserved.

AGRICULTURAL DISTRICTS

MAP #3-1



Chapter 4

Environmental Quality

Chapter Four: ENVIRONMENTAL QUALITY

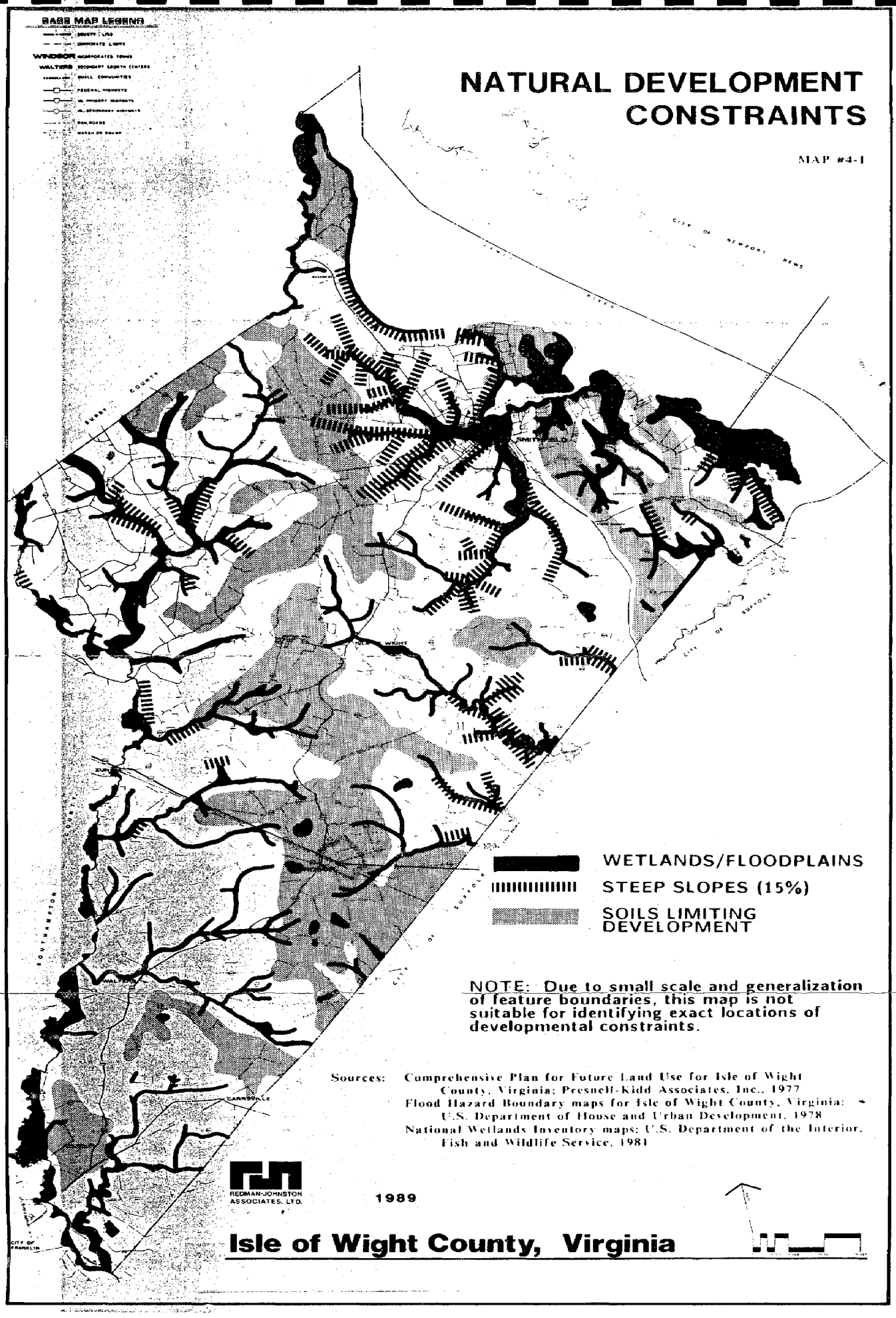
Introduction

The impacts of future growth and development on environmental quality in Isle of Wight is an issue of increasing public concern. The effects of increased population and physical development manifest themselves on the natural environment in many ways, including: clearing of trees and natural vegetation; loss of plant and wildlife habitat; loss of valuable wetlands and aquatic habitat; lower groundwater levels; groundwater contamination and saltwater intrusion; degradation of surface water quality in streams and rivers; disruption of natural water drainage systems; air pollution; increased amounts of solid wastes; and loss of scenic natural views.

Environmental deterioration is not an inevitable consequence of population growth. The development of new homes, businesses, industries, schools, and roads necessary to accommodate a growing population can occur without unduly threatening the County's environmental quality if steps are taken to ensure new development is designed and built in an environmentally sensitive manner. Certain areas of Isle of Wight are much more susceptible to environmental degradation than others due to the presence of sensitive natural features. Future development should be directed away from sensitive areas and guided to areas of the County where environmental impacts will be less severe. Regardless of location, all future development should meet minimum performance standards for environmental protection.

Background Information and Environmental Quality Issues

Characteristics of the natural environment affect development. While some natural features encourage and enhance development, others should limit certain land uses and the intensity of development. Analysis of the County's natural features provides a means for determining the development capabilities of the land. Map 4-1 (Natural Development Constraints) depicts the County's major natural growth determinants. These include: wetlands and floodplains; areas with steep slopes of 15 percent or greater; and areas where soils are generally unsuitable for septic systems.


BASE MAP LEGEND
WINDSOR
WALTERS
NATURAL DEVELOPMENT CONSTRAINTS
MAP #4-1
CITY OF NEWPORT NEWS
JAMES RIVER
SURRY COUNTY
SMITHFIELD
CITY OF SUFFOLK
SOUTHAMPTON COUNTY
CARROLLTON
WETLANDS/FLOODPLAINS
STEEP SLOPES (15%)
SOILS LIMITING DEVELOPMENT
NOTE: Due to small scale and generalization of feature boundaries, this map is not suitable for identifying exact locations of developmental constraints.
Sources: Comprehensive Plan for Future Land Use for Isle of Wight County, Virginia; Presnell-Kidd Associates, Inc., 1977
Flood Hazard Boundary maps for Isle of Wight County, Virginia; U.S. Department of House and Urban Development, 1978
National Wetlands Inventory maps; U.S. Department of the Interior, Fish and Wildlife Service, 1981
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Topography

The land in Isle of Wight County is mostly level to gently sloping. Some areas near the drainageways slope steeply up to gently sloping well-drained land. The central area of the County between the Blackwater River and James River watersheds is flat upland with poorly drained upland swamps called pocosins. The eastern edge of the County contains poorly drained clay upland flats below the Suffolk Scarp. Elevations range from sea level at the James River on the northern edge of the County, where there are extensive tidal marshes, to about 100 feet at the Surry County line. The Suffolk Scarp ranges from about 35 to 75 feet high. Limited areas of steep slopes are located along streams and rivers in the County.

Soils

A detailed soil survey for Isle of Wight County has recently been updated by the USDA Soil Conservation Service. This survey is the County's best source for detailed site data on soils constraints for development. Map 4-1 shows generalized areas where soils constraints for development are present. Many of these soils constraints are related to septic limitations, which can be overcome by central sewer service. Copies of the Isle of Wight County Soil survey are available for inspection in the County Department of Community Development.

Floodplain

Floodplains are nearly level land areas which border streams and rivers and are occasionally flooded unless artificially protected. The actual boundary of a floodplain varies significantly depending on the designated frequency of flooding. The 100 year frequency is most often used to determine flood hazard areas. The 100 year floodplain is the area which has a 100 percent probability of being flooded at least once during a 100 year time period; or a 1 percent chance of flooding each year.

The 100 Year Floodplain is recognized by federal regulations as the area where the potential for flooding is a significant hazard and where development should be limited or not occur at all. The floodplain is divided into two sections; the floodway and the floodway fringe. Federal Emergency Management Agency (FEMA) requirements address the direct aspects of potential damage that can occur if new development takes place in areas subject to flooding. To qualify for flood insurance, floodway development is prohibited, and floodway areas are, therefore, well

protected. The floodway is the land area which is directly adjacent to the water channel. Although FEMA does not prohibit construction in the floodway fringe, development is not encouraged. Floodplain filling and development can result in a major loss in the storage capacity of flood waters, alter drainage patterns, and cause an increased velocity and volume of runoff. While development located on the filled floodplain is reasonably safe from flooding, areas downstream may experience increased flood heights and greater channel water velocity.

Maps of the County's 100 Year Floodplain are available for inspection in the County Department of Community Development. The U.S. Army Corps of Engineers is currently conducting a study of the Blackwater River floodplain boundary.

Watersheds and Surface Water

The County's numerous water bodies are situated within two drainage basins. The James River watershed includes the Pagan River, Chuckatuck Creek, Lawnes Creek, and many associated tributary streams. The Blackwater River watershed consists of the Rattlesnake, Villiness, Pope, Antioch, Horse, Corrowaugh, and Kingsale Swamps and associated tributaries. The Blackwater River watershed drains the western and southern portions of Isle of Wight. The existence of pocosin areas in the central higher elevated portions of the County impedes drainage of this area. The James River watershed ultimately drains into the Chesapeake Bay and the Blackwater River watershed ultimately drains into the Chowan River basin and the Albemarle Sound in North Carolina. North Carolina environmental officials are currently studying environmental impacts in the Albemarle and Pamlico sounds

Depending on the size of the water resource and the location of nearby potential pollutants, all surface waters are susceptible to potentially harmful effects of development. These may include: leachate from landfills; solids or suspended sediment from sand and gravel washing operations; bacterial contamination from failing septic systems and sewage treatment plants; runoff from agricultural fields and impervious surfaces; untreated sewage from boats and marinas; leaking industrial storage and containment facilities; dredging operations; and leachate from dredge spoils sites.

The James River has been over-enriched with biological nutrients such as phosphorous and nitrogen because of the many sewage treatment and industrial plants which discharge wastes containing these nutrients into its waters below the fall line. In tidal waters these nutrients are not flushed downstream as quickly as in non-tidal waters. When these nutrients are oversupplied, algal blooms result which cause unpleasant tastes and odors in the water. Water turbidity reduces the availability of light to bottom growing submerged aquatic vegetation which is an important food source for wildlife and waterfowl. In addition, when the algae die and decay, additional dissolved oxygen is needed, placing the continued health and survival of fish and shellfish inhabiting these waters in jeopardy.

The largest municipal sewage treatment plant in Isle of Wight County is in Smithfield, with an average flow of 370,000 gallons of wastewater per day. Smithfield Foods is the major industrial discharge source with 2.57 million gallons of wastewater per day. The Town of Smithfield treatment plan is currently operating above its capacity. No new hook-ups are permitted to the Smithfield system.

The State Department of Health, Bureau of Shellfish Sanitation (BSS) monitors shellfish beds and determines which will produce shellfish safe for human consumption. BSS condemns shellfish beds in the vicinity of sewage treatment plants, failing septic areas, and marinas, when nutrient levels in the water exceed safe standards. Isle of wight County has condemned shellfish beds at Lawnes Point, in the Pagan River to Goodwin Point, and in the Jones, Cypress, Ballard, and Kings Creeks.

The Virginia Division of Soil and Water Conservation (VDSWC) recommends control of non-point sources of nutrients by best management practices for agriculture such as; maintaining vegetated buffers or filter strips along rivers and tributaries, using grass swales for drainage in agricultural fields, containing animal wastes, and limiting fertilizer applications. The VDSWC also administers the Erosion and Sediment Control Laws, which are enforced by local ordinances.

Groundwater

Groundwater is the sole source for drinking water in Isle of Wight County. Since the early 1900s, increasing demand for groundwater has caused groundwater levels in

the Hampton Roads region to decline, resulting in large cones of depression that expand from industrial and population centers such as Franklin. Lower groundwater levels and large cones of depression in the groundwater table increase the potential for saltwater intrusion into drinking water supplies. About a 3,000 square mile area of Southeastern Virginia was designated a Groundwater Management Area in 1976. All of Isle of Wight County is included in this area. Industrial, municipal, or commercial use of more than 300,000 gallons of groundwater per month requires a permit from the Virginia Water Control Board.

The Virginia Water Control Board and the U.S. Geological Survey have recently studied the groundwater system in Southeastern Virginia to assess the continued reliability of this important resource. Several important conclusions were reached through this study. First, groundwater levels have declined since 1900; more than 250 feet in the lower and middle Potomac Aquifers near Franklin, with declines of at least 30 feet in other areas. In the upper Potomac Aquifer, in the Smithfield area, groundwater levels have declined more than 100 feet. Secondly, the study found that discharges to surface waters have also declined within the region, except for areas where saline waters have entered the groundwater system near the Chesapeake Bay and its major tributaries.

Since most surface waters in and adjacent to Isle of Wight are not suitable for drinking water supplies without extensive treatment, it is important that the County conserve and protect its groundwater supply. The County is currently preparing a Comprehensive Water and Sewer Plan which will address the issue of future drinking water supplies.

Wetlands Issues

There was a time, not too long ago, that wetlands (marshes, bogs, pocosins, and mucky soils) were viewed solely as sources of disease and pestilence. Early government involvement with wetlands were give-away programs with the condition that they be drained and filled for useful purposes such as farming. In the 20th century, well-intentioned public and private efforts to provide flood protection, mosquito control, greater agricultural productivity, better highways, and many other benefits to society have often resulted in filling or draining of wetlands for farming, forestry, industry, and development.

In more recent years research has concluded that wetlands play a vital role in the environment. Wetlands are valuable for the many physical, hydrological, biological, and cultural functions which they provide. These include:

Physical

- Wetland vegetation and shallow waters absorb coastal wave energy and reduce shore erosion.
- Wetlands slow water velocities and reduce sediment in the water.
- Wetland plants and bottom sediments are sinks or collectors of excess nutrients such as nitrates and phosphorous.
- Wetlands trap water borne heavy metals, herbicides, and pesticides.
- Wetland plants re-oxygenate water thereby lowering biological oxygen demand.

Hydrological

- Wetlands act as floodways when associated with rivers and adjacent floodplains which convey water downstream.
- Wetlands store water during floods and release volumes slowly, reducing drastic flood surges.
- Wetlands, while most often are water discharge areas, also may act as water recharge areas.

Biological

- Wetland plants and invertebrates serve as the basis of a highly productive food chain.
- Wetlands are nursery and spawning areas for many species of finfish and shellfish. From 60 to 90 percent of commercially caught fish depend on coastal wetlands for food or spawning.
- Wetlands are also an important habitat for many waterfowl and wildlife species, serving as protective areas for feeding, resting, and breeding.
- Wetlands are habitat for many rare and endangered species, almost 35 percent of protected animal species are found in wetlands, although wetlands cover only about 5 percent of the nation's land area.

Cultural

- Wetlands often contain important historical and archeological sites since they were early sources of food.
- Wetlands serve important recreational and commercial values for fishing, hunting, and trapping.
- Wetlands which are forested may be managed for valuable timber production.
- Wetlands provide scenic open spaces and often serve as areas for bird and wildlife observation.

In light of the above described benefits, wetland activities are increasingly being regulated. In Virginia, tidal wetlands are protected by the 1972 Wetlands Protection Act, as amended. This law requires a special permit prior to starting construction, dredging, or filling a tidal wetland. The Act also empowers local jurisdictions to establish Wetlands Boards which may review and decide permit requests. Isle of Wight County has a Wetlands Board. The Virginia Marine Resources Commission has the ultimate authority to administer the Wetlands Protection Act and reviews all decisions handed down by local boards.

Non-tidal wetlands are currently federally regulated by Section 404 of the 1977 Clean Water Act, as amended, which prohibits disposal of dredged or fill material into "waters of the United States" and adjacent wetlands. This has been broadly interpreted by the Environmental Protection Agency (EPA) to include virtually all surface waters in the nation, regardless of size. The Virginia General Assembly is currently considering statewide non-tidal wetlands protection legislation.

The recently adopted Chesapeake Bay Preservation Act and Chesapeake Bay Preservation Area Designation and Management Regulations establish mandatory provisions for local Tidewater jurisdictions to protect wetlands and water quality. This legislation and its implications for Isle of Wight are discussed later in this chapter.

Tidal Marshes

There are approximately 5,400 acres of tidal marsh in Isle of Wight County. Of this total, about 3,250 acres are in the Pagan River system and 1,350 are in the Ragged Island Marsh located along the James River at the northeastern point of the County.

Additional tidal marshes and flats are found as fringing marsh along the James River shoreline in isolated spots and along Lawnes Creek.

With decreases in salinity in the upper reaches of the creeks and rivers, vegetation becomes more diverse. The species present depend on salinity, marsh elevation, soils, and other factors. Those marshes with the greatest diversity of vegetation, such as those in brackish waters, have the highest wildlife values.

Non-tidal Wetlands: Swamps and Pocosins

Non-tidal wetlands typically include freshwater swamps, bogs and low lying areas where water stands on or close enough to the surface to create oxygen poor conditions in the soil. Special types of plants called hydrophytes are adapted to these conditions and usually indicate the presence of wetlands. Other non-tidal wetland indicators are waterlogged soils and drainage patterns that show physical evidence of flooding.

No comprehensive survey has been compiled on all of Isle of Wight's extensive non-tidal wetlands. The U.S. Fish and Wildlife Service has mapped all County wetlands of three acres or more in size as part of the National Wetlands Inventory. These maps are available for inspection at the County Department of Community Development.

Forest Resources

The forest industry in Isle of Wight County has been previously discussed in the Rural Character and Agricultural Preservation chapter. The patterns of ownership and management of forest resources are important when considering forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are an excellent filter area for groundwater recharge. Forests also form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses. Best management practices for the timber industry ensure the conservation of the County's extensive forest resources.

Wildlife

The numbers and diversity of wildlife species present in an area is determined in part by the quantity and quality of wildlife habitat which is available, especially food availability and cover. The major threat to indigenous species in developing areas is the fracturing and fragmenting of habitat areas. When habitat is cleared for development or agriculture, not only is the cleared habitat area lost, but the habitat area is also degenerated at the development edge. This results in disturbance to interior habitat areas as well. Certain species of wildlife require large, unfragmented habitat areas in order to survive.

The Virginia Department of Conservation and Historic Resources' Natural Heritage Program and the Department of Game and Inland Fisheries' Fish and Wildlife Information System currently maintain inventories of wildlife resources and habitats for the County. Endangered and threatened plant species are protected by the Virginia Department of Agriculture and Consumer services, which uses information from the Natural Heritage Program inventory.

The Natural Heritage Program was established in 1986 in joint cooperation with the Nature Conservancy to identify elements of natural biological diversity which are of rare or special concern in Virginia. The program focuses on rare plants, animals, geological landmarks, natural ecological communities, and other natural features. The locations and characteristics of these natural features are entered into a computerized data base. Sites are rated and superior habitats are targeted for acquisition using the State's Natural Area Preservation Fund. The Natural Heritage Program also makes information on acquiring environmental easements available to property owners.

The Department of Game and Inland Fisheries has a similar information base of wildlife for planning and management purposes. General mapped habitats may be obtained for planning and/or preservation purposes, but locations of specific sites are closely guarded in order to protect the habitat.

The Chesapeake Bay Preservation Act

The Chesapeake Bay is the most significant and important natural resource in the Tidewater Region of Virginia. In response to recent interstate regional agreements

between Virginia, Maryland, Washington D.C., and Pennsylvania to clean-up the Chesapeake Bay, The State of Virginia has adopted the Chesapeake Bay Preservation Act which mandates all Tidewater Virginia localities to establish programs, plans, and ordinances to protect and improve Bay water quality. These "local programs" must be in conformance with the Chesapeake Bay Preservation Area Designation and Management Regulations adopted by the Virginia Legislature in September, 1989. In Isle of Wight County, the James River watershed and all associated tributaries are affected by these regulations. The Blackwater river watershed and its associated tributaries do not drain into the Chesapeake Bay system and are, therefore, not impacted by this legislation.

Purpose

The purpose of the regulations is to protect and improve the water quality of the Chesapeake Bay, its tributaries, and other state waters by minimizing the effects of human activity upon these waters and implementing the Chesapeake Bay Preservation Act, which provides for the definition and protection of certain lands called Chesapeake Bay Preservation Areas, which if improperly used or developed may result in substantial damage to water quality of the Chesapeake Bay and its tributaries.

The regulations establish the criteria that local governments shall use to determine the extent of the Chesapeake Bay Preservation Areas within their jurisdictions. The regulations establish criteria for use by local governments in granting, denying, or modifying requests to rezone, subdivide, or to use and develop land in Chesapeake Bay Preservation Areas. The regulations identify the requirements for changes which local governments shall incorporate into their comprehensive plans, zoning ordinances, and subdivision regulations to protect the quality of state waters pursuant to the Chesapeake Bay Preservation Act.

Goals

Local governments are required to develop measures, or local programs, necessary to comply with the Chesapeake Bay Preservation Act and Regulations. Counties and towns are encouraged to cooperate in the development of their local programs. In conjunction with other state water quality programs, local programs shall encourage and promote:

- protection of existing high quality state waters and restoration of all other state waters to a condition or quality that will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them;

- safeguarding the clean waters of the Commonwealth from pollution;

- prevention of any increases in pollution;

- reduction of existing pollution; and

- promotion of water resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of the Commonwealth.

Local Program Elements

The regulations require that the "Local Program" for Isle of Wight County shall contain the elements listed below. Elements A and B shall be adopted concurrently and no later than October 1, 1990. Elements C through G shall be in place by October 1, 1991.

A. A map delineating Chesapeake Bay Preservation Areas.

B. Performance criteria for land use and development within Chesapeake Bay Preservation Areas.

C. A comprehensive plan or revision that incorporates the protection of Chesapeake Bay Preservation Areas and of the quality of state waters.

D. A zoning ordinance or revision that (i) incorporates measures to protect the quality of state waters in Chesapeake Bay Preservation Areas, and (ii) requires compliance with all performance criteria for land use and development.

E. A subdivision ordinance or revision that (i) incorporates measures to protect the quality of state waters in Chesapeake Bay Preservation Areas, and (ii) assures that all subdivisions in Chesapeake Bay Preservation Areas comply with the performance criteria for land use and development.

F. An erosion and sediment control ordinance or revision that requires compliance with performance criteria for land use and development.

G. A plan of development process prior to the issuance of a building permit to assure that use and development of land in the Chesapeake Bay Preservation Areas is accomplished in a manner that protects the quality of state waters.

Chesapeake Bay Preservation Area Designation Criteria

As part of its Local Program for Chesapeake Bay Preservation, Isle of Wight County will designate portions of the James River watershed as Chesapeake Bay Preservation Areas. Land designated as Chesapeake bay preservation areas will be further classified as either Resource Protection Areas (RPAs), Resource Management Areas (RMAs), or Intensely Developed Areas (IDAs).

Resource Protection Areas

Resource Protection Areas (RPAs) shall consist of sensitive lands at or near the shoreline that have an intrinsic water quality value due to the ecological and biological processes they perform, or are sensitive to impacts which may cause degradation to the quality of state waters. In their natural condition, these lands provide for the removal, reduction, or assimilation of sediments, nutrients, and potentially harmful or toxic substances in runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources.

The RPAs shall include:

1. Tidal wetlands;
2. Non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams;
3. Tidal shores;
4. Such other lands necessary to protect the quality of state waters;
5. A buffer area not less than 100 feet in width located adjacent to and landward of the components listed in items 1 through 4 above, and along both sides of any tributary stream. The full buffer area shall be designated as the landward component of the RPA notwithstanding the presence of permitted uses or equivalent measures in compliance with performance criteria for land use and development. Designation of these areas shall not be subject to reduction unless based on site-specific information.

Resource Management Areas

Resource Management Areas (RMAs) shall include land types that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area.

A RMA shall be provided contiguous to the entire inland boundary of the Resource Protection Area. The following land categories shall be considered for inclusion in the RMAs:

1. Floodplain;
2. Highly erodible soils, including steep slopes;
3. Highly permeable soils;
4. Non-tidal wetlands not included in the Resource Protection Areas;
5. Such other lands necessary to protect the quality of state waters.

RMAs shall encompass a land area large enough to provide significant water quality protection through the employment of performance criteria for land use and development.

Intensely Developed Areas

At the option of Isle of Wight County, the County may designate Intensely Developed Areas (IDAs) as an overlay of Chesapeake Bay Preservation Areas within their jurisdiction. IDAs shall serve as redevelopment areas in which development is concentrated as of the local program adoption date. Areas so designated shall comply with established performance criteria for redevelopment.

In exercising this option, Isle of Wight County shall examine the pattern of residential, commercial, industrial, and institutional development within Chesapeake Bay Preservation Areas. Areas of existing development and in-fill sites where little of the natural environment remains may be designated as IDAs provided at least one of the following conditions exist:

1. Development has severely altered the natural state of the areas such that it has more than 50 percent impervious surface.
2. Public sewer and water is constructed and currently serves the area by the effective date. This condition does not include areas planned for public sewer and water.
3. Housing density is equal to or greater than four dwelling units per acre.

Land Use and Development Performance Criteria

The purpose of these criteria are to achieve the goals of the Preservation Act and to implement the following objectives: prevent a net increase in non-point source pollution from new development; achieve a 10 percent reduction in non-point source pollution from redevelopment; and achieve a 40 percent reduction in non-point source pollution from agricultural and silvacultural (forestry) uses.

In order to achieve these goals and objectives, these criteria establish performance standards to minimize erosion and sedimentation potential, reduce land application of nutrients and toxins, maximize rainwater infiltration, and ensure the long-term performance of the measures employed.

These criteria will become mandatory upon the Isle of Wight County local program adoption date. They are supplementary to the various planning and zoning concepts employed by the County in granting, denying, or modifying requests to rezone, subdivide, or to use and develop land in Chesapeake Bay Preservation Areas.

Isle of Wight County may exercise judgement in determining site-specific boundaries of Chesapeake Bay Preservation Area components and in making determinations of the application of the Act's regulations, based on more reliable or specific information gathered from actual field evaluations of the parcel, in accordance with development plan review requirements.

General Performance Criteria.

It must be demonstrated to the satisfaction of Isle of Wight County that any use, development, or redevelopment of land in Chesapeake bay Preservation Areas meets the following performance criteria:

1. No more land shall be disturbed than is necessary to provide for the desired use or development.

2. Indigenous vegetation shall be preserved to the maximum extent possible consistent with the use and development allowed.

3. Where the best management practices utilized require regular or periodic maintenance in order to continue their functions, such maintenance shall be ensured by the County through a maintenance agreement with the

owner or developer or some other mechanism that achieves an equivalent objective.

4. All development exceeding 2,500 square feet of land disturbance shall be accomplished through a plan of development review consistent with the Code of Virginia.

5. Land development shall minimize impervious cover consistent with the use of development allowed.

6. Any land disturbing activity that exceeds an area of 2,500 square feet (including construction of all single-family houses, septic tanks and drainfields, but otherwise as defined in Section 10.1-560 of the Code of Virginia) shall comply with the requirements of the local sediment and erosion control ordinance.

7. On-site sewage treatment systems not requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit shall:

   a. Have pump-out accomplished for all such systems at least once every five years;

   b. For new construction, provide a reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site. This reserve sewage disposal site requirement shall not apply to any lot or parcel recorded prior to the effective date of these regulations, and which lot or parcel is not sufficient in capacity to accommodate a reserve sewage disposal site, as determined by the local Health Department. Building shall be prohibited on the area of all sewage disposal sites until the structure is served by public sewer or an on-site sewage treatment system which operates under a permit issued by the State Water Control Board. All sewage disposal site records shall be administered to provide adequate notice and enforcement.

8. Stormwater management criteria which accomplish the objectives of these regulations shall apply. For development, the post-development non-point source pollution runoff load shall not exceed the pre-development load based upon average land cover conditions. Redevelopment of any site not currently served by water quality best management practices shall achieve at least a 10 percent reduction of non-point source pollution in runoff compared to the existing runoff load from the site. Post development runoff from any site to be redeveloped that is currently served by water quality best management practices shall not exceed the existing load of non-point source pollution in surface runoff.

   a. The following stormwater management options shall be considered to comply with this subsection of these regulations:

      (1) Incorporation on the site of best management practices that achieve the required control;

(2) Compliance with a locally adopted regional stormwater management program incorporating pro-rata share payments pursuant to the authority provided in Section 15.1-466(j) of the Code of Virginia that results in achievement of equivalent water quality protection;

(3) Compliance with a state or locally implemented program of stormwater discharge permits pursuant to Section 402(p) of the federal Clean water Act, as set forth in 40 C.F.R. Parts 122, 123, 124, and 504, dated December 7, 1988;

(4) For a redevelopment site that is completely impervious as currently developed, restoring a minimum 20 percent of the site to vegetated open space.

b. Any maintenance, alteration, use, or improvement to an existing structure which does not degrade the quality of surface water discharge, as determined by the County, may be exempted from the requirements of this subsection.

c. Stormwater management criteria for redevelopment shall apply to any redevelopment, whether or not it is located within an Intensely Developed Area designated by the County.

9. Land upon which agricultural activities are being conducted, including but not limited to crop production, pasture, and dairy and feedlot operations, shall have a soil and water quality conservation plan. Such a plan shall be based upon the Field Office Technical Guide of the U.S. Department of Agriculture Soil Conservation Service and accomplish water quality protection consistent with the Preservation Act and regulations. Such a plan will be approved by the local Soil and Water Conservation District by January 1, 1995.

The Chesapeake Bay Local Assistance Board will request the Department of Conservation and Recreation to evaluate the existing state and federal agricultural conservation programs for effectiveness in providing water quality protection. In the event that, by July 1, 1991, the Department of Conservation and Recreation finds that the implementation of the existing agricultural conservation programs is inadequate to protect water quality consistent with the Act and regulations, the Board will consider the promulgation of regulations to provide more effective protection of water quality from agricultural activities and may require implementation of best management practices on agricultural lands within Chesapeake Bay Preservation Areas.

10. Silvacultural activities in Chesapeake Bay Preservation Areas are exempt from these regulations provided that silvacultural operations adhere to water quality protection procedures prescribed by the Department of Forestry in its "Best Management Practices Handbook for Forestry Operations." The Department of Forestry will oversee and document installation of best management practices and will monitor the in-stream impacts of forestry operations in Chesapeake Bay Preservation Areas. In

the event that, by July 1, 1991, the Department of Forestry programs are unable to demonstrate equivalent protection of water quality consistent with the Act and regulations, the Department of Forestry will revise its programs to assure consistency of results and may require implementation of best management practices.

11. Isle of Wight County shall require evidence of all wetlands permits required by law prior to authorizing grading or other on-site activities to begin.

Performance Criteria For Resource Protection Areas

The following criteria shall apply specifically within Resource Protection Areas (RPAs) and supplement the general performance criteria.

A. Allowable Development

A water quality impact assessment shall be required for any proposed development in accordance with the provisions of the Chesapeake Bay Preservation Act and regulations. Land development may be allowed only if it (i) is water dependent or, (ii) constitutes redevelopment.

1. A new or expanded water-dependent facility may be allowed provided that:

   (a) It does not conflict with the Comprehensive Plan;

   (b) It complies with the performance criteria set forth in this part;

   (c) Any non-water dependent component is located outside of Resource Protection Areas;

   (d) Access will be provided with the minimum disturbance necessary. Where possible, a single point of access will be provided.

2. Redevelopment shall conform to applicable stormwater management and erosion and sediment control criteria in this part.

B. Buffer Area Requirements

To minimize the adverse effects of human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100 foot buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff shall be retained if present and established where it does not exist. The 100 foot buffer area shall be deemed to achieve a 75 percent reduction of sediments and a 40 percent reduction of nutrients. Except as noted in this subsection, a combination of a buffer area not less than 50 feet in width and appropriate best management practices located landward of the buffer area which collectively achieve water quality protection, pollutant removal, and water resource conservation at least the equivalent

of the 100 foot buffer area may be employed in lieu of the 100 foot buffer. The following additional performance criteria shall apply:

1. In order to maintain the functional value of the buffer area, indigenous vegetation may be removed only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices, as follows:

   (a) Trees may be pruned or removed as necessary to provide for sight lines and vistas, provided that where removed, they shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff.

   (b) Any path shall be constructed and surfaced so as to effectively control erosion.

   (c) Dead, diseased, or dying trees or shrubbery may be removed at the discretion of the landowner, and silvacultural thinning may be conducted based upon the recommendation of a professional forester or aborist.

   (d) For shoreline erosion control projects, trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect and stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.

2. When the application of the buffer area would result in the loss of buildable area on a lot or parcel recorded prior to the effective date of these regulations, modifications to the width of the buffer area may be allowed in accordance with the following criteria:

   (a) Modifications to the buffer area shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities;

   (b) Where possible, an area equal to the area encroaching the buffer area shall be established elsewhere on the lot or parcel in a way to maximize water quality protection;

   (c) In no case shall the reduced portion of the buffer area be less than 50 feet in width.

3. Redevelopment within Intensely Developed Areas may be exempt from the requirements of this subsection. However, while the immediate establishment of the buffer area may be impractical, the County shall give consideration to implementing measures that would establish the buffer in these areas over time in order to maximize water quality protection, pollutant removal, and water resource conservation.

4. On agricultural lands the agricultural buffer area shall be managed to prevent concentrated flows of surface water from breaching the buffer area and noxious weeds (such as Johnson grass, kudzu, and multi-flora rose) from invading the buffer area. The agricultural buffer area may be reduced as follows:

   (a) To a minimum width of 50 feet when the adjacent land is enrolled in a federal, state, or locally-funded agricultural best management practices program, and the program is being implemented, provided that the combination of the reduced buffer area and best management practices achieve water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100 foot buffer area.

   (b) To a minimum width of 25 feet when a soil and water quality conservation plan, as approved by the local Soil and Water Conservation District, has been implemented on the adjacent land, provided that the portion of the plan being implemented for the Chesapeake Bay Preservation Area achieves water quality protection at least the equivalent of that provided by the 100 foot buffer area in the opinion of the local Soil and Water Conservation District Board. Such plan shall be based upon the Field Office Technical Guide of the U.S. Department of Agriculture Soil Conservation Service and accomplish water quality protection consistent with the Act and these regulations.

   (c) The buffer area is not required for agricultural drainage ditches if the adjacent agricultural land has in place best management practices in accordance with a conservation plan approved by the local Soil and Water Conservation District.

Administrative Waivers and Exemptions

A. Nonconforming Use and Development Waivers.

   1. The County may permit the continued use, but not necessarily the expansion, of any structure in existence on the date of local program adoption. The county may establish an administrative review procedure to waive or modify the criteria of this part for structures on legal nonconforming lots or parcels provided that:

      (a) There will be no net increase in non-point source pollutant load;

      (b) Any development or land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this part.

   2. It is not the intent of these criteria to prevent the reconstruction of pre-existing structures within Chesapeake Bay Preservation Areas from occurring as a result of casualty loss unless otherwise restricted by County ordinances

B. Public Utilities, Railroads, and Facilities Exemptions.

1. Construction, installation, operation, and maintenance of electric, gas, and telephone transmission lines, railroads, and public roads and their appurtenant structures in accordance with the Erosion and Sediment Control law (Section 10.1-560 et. seq. of the Code of Virginia) or an erosion and sediment control plan approved by the Virginia Soil and Water Conservation Board will be deemed to constitute compliance with these regulations.

2. Construction, installation, operation, and maintenance of water, sewer and local gas lines shall be exempt from the criteria in this part provided that:

   (a) To the degree possible, the location of such utilities and facilities should be outside Resource Protection Areas.

   (b) No more land shall be disturbed than is necessary to provide for the desired utility installation.

   (c) All such construction, installation, and maintenance of such utilities and facilities shall be in compliance with all applicable state and federal permits and designed and conducted in a manner that protects water quality.

   (d) Any land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this part.

C. Exemptions in Resource Protection Areas.

The following land disturbance activities in Resource Protection Areas may be exempt from the criteria of this part provided that they comply with items 1 and 2 below: (i) water wells; (ii) passive recreation facilities such as boardwalks, trails, and pathways; and (iii) historic preservation and archaeological activities.

1. The County shall establish administrative procedures to review such exemptions;

2. Any land disturbance exceeding an area of 2,550 square feet shall comply with the erosion and sediment control requirements of this part.

<u>Exceptions To The Criteria</u>

Exceptions to the requirements of these criteria may be granted, provided that: (i) exceptions to the criteria shall be the minimum necessary to afford relief, and (ii) reasonable and appropriate conditions upon any exception granted shall be imposed as

necessary so that the purpose and intent of the Act is preserved. The County shall design an appropriate process or processes for the administration of exceptions.

Local Program Development

These performance criteria for land use and development are hereby included as part of Isle of Wight County's Comprehensive Growth Management Plan. In addition to designation of County Chesapeake Bay Preservation Areas, the County will incorporate these criteria into its zoning ordinance, subdivision regulations, and erosion and sediment control ordinance. The County will also establish a plan of development review and approval process for building permit issuance for development within designated Chesapeake Bay Preservation Areas. The County will also establish administrative and enforcement procedures as part of its overall Local Program for Chesapeake Bay Preservation.

Environmental Quality Goals and Objectives

Isle of Wight County is in need of an explicit set of environmental quality goals and objectives which can guide the establishment of local action programs for specific issues. These goals and objectives provide an opportunity to temper growth objectives in recognition of potential environmental consequences. Population growth is often equated with a healthy local economy. However, growth encouragement based primarily on economic justification poses threats to the County's environmental quality. The attitude that "all growth is good growth" is being challenged more frequently as the environmental consequences are recognized. The environmental quality goals and objectives recognize the cycle of "cause and effect" associated with growth and environmental quality.

All County residents play an important role in the balance of Isle of Wight's environmental system. As the County grows, susceptibility to system imbalance and environmental damage increases. Limits exist to the amount of growth and development that Isle of Wight County can absorb without threatening environmental quality and resource supplies. According to the concept of "carrying capacity", Isle of Wight County is equipped with a finite supply of natural resources which can support a limited number of people. If its carrying capacity is exceeded, serious environmental degradation can occur, and solutions may be costly. Isle of Wight will

probably not reach its threshold for many years, but the influence of our present activities on the County's ability to grow and improve must be recognized.

The natural capacity of Isle of Wight County is not fixed and can be improved significantly through protective environmental intervention. Given that Isle of Wight County is a complimentary part of an environmentally balanced system with a finite resource base, a reexamination of existing land use practices and activity patterns will decide the necessary adjustments to increase the County's "carrying capacity." Intervention is justified for maintaining long-term growth options and significant economic advantages can be realized on a short-term basis.

The costs of resource reclamation is far greater than that of intervention and protection. **If the consequences of environmentally damaging activities are left unbridled, the loss of a resource must be accepted, or payment must be made collectively by taxpayers to address the problem.** As an example, collective federal, state, and local tax dollars are currently being spent to correct environmental damage to the Chesapeake Bay which has resulted from decades of neglect and abuse. Current legislation and efforts to protect Bay water quality will yield long-term dividends concerning this important environmental and economic resource.

The following goal is established for environmental quality in Isle of Wight County.

> **To preserve and improve the environmental quality of the County through measures which protect Isle of Wight's natural resources and environmentally sensitive lands and waters.**

Objectives to achieve this goal are:

- To protect Chesapeake Bay water quality through adoption, administration and enforcement of a Local Program for Chesapeake Bay Preservation. This Local Program will affect the James River watershed and all associated County tributaries.

- To institute measures to protect the quality of other surface waters within the County, including the Blackwater River watershed and associated tributaries, which drain into North Carolina's environmentally sensitive Albermarle and Pamlico sounds.

- To protect and conserve fragile groundwater resources within the County.

- To protect important tidal and non-tidal wetland resources within the County.
- To protect and conserve forest resources within the County.
- To protect the important natural function of floodplains within the County by limiting disturbance and development activity.
- To preserve County shorelines by protecting against shoreline erosion.
- To minimize runoff and sedimentation associated with agricultural and development activities, particularly in areas with steep slopes.
- To preserve natural open spaces within the County.
- To protect important plant and wildlife habitats within the County.
- To coordinate environmental quality protection efforts with future opportunities to establish public parks, natural recreation areas, and open spaces.
- To improve environmental quality on a site-by-site basis through the establishment of performance standards for environmentally sensitive development.

Implementation Recommendations

The following is a list of specific measures the County should undertake to achieve its environmental quality goals and objectives.

- The County should adopt a Local Program for Chesapeake Bay Preservation which contains the program elements and performance criteria for land use and development as outlined in this chapter.
- The County should adopt similar protective measures for the Blackwater River watershed and associated tributaries and wetlands, including upland pocosins.
- The County should limit future development in the Plan's Resource Conservation Districts to low intensity residential uses, passive park and recreation uses, and water dependent uses.
- The County should require proposed development within the Resource Conservation Districts to prepare and submit for review an environmental impact assessment which identifies potential environmental problems and suggests appropriate mitigation strategies and plans.
- The County should continue to require evidence of all federal, state, and local environmental and health permits as a condition of development approval.

- The County should prohibit development within floodways and floodplains which limits natural water storage capacity. Use of floodway fringe areas for recreational, other non-structural uses, and open space should be encouraged.

- Mining and other extractive industries are important to the Isle of Wight County economy. However, these industries are potential nuisances and can adversely impact the environment and surrounding land uses. Extractive industries should not be concentrated in any geographical areas where the cumulative impacts could harm the area. Guidelines for locating extractive industries and environmental and appearance performance standards should be incorporated into County development ordinances.

- Performance standards and controls are recommended to permit development design flexibility and to adapt to variable site characteristics. New environmentally sensitive development regulations are needed which recognize and protect natural site functions. Environmentally sensitive features such as wetlands and critical plant and wildlife habitats should be explicitly protected and buffered from development activities.

- Open space requirements should be put into effect. The extent to which a site can be covered by impervious surfaces should be limited. Requirements should specify minimum areas that must remain undisturbed and available for stormwater infiltration and site vegetation.

- No net change in runoff should be allowed at development sites. Drainage techniques normally channel stormwater runoff away from the structure and off the site. The volume and velocity of stormwater runoff leaving a developed site should be no greater than pre-development levels, primarily for adjacent property protection and non-source point pollution control.

- Natural vegetation and trees should be preserved during development. Site clear-cutting should be expressly prohibited. Mature trees should be protected. A minimum amount of vegetation should be required which corresponds with open space requirements. If tree removal is unavoidable, replacement in lieu of removal should be required. Where vegetation is removed, temporary grass seeding should be required for erosion control if the site remains untreated for more than two months.

- There should be zoning incentives to promote cluster development. Cluster development makes wise use of land resources and is environmentally sensitive. The County development ordinances should be updated to provide greater incentives for clustering.

- Slope density regulations should be enacted. A steeply sloped site cannot support the same development density as a flat site without severe disturbance. Permitted density should decrease as slope increases. Grading activities should be limited in proportion to slope vulnerability.

- Agricultural and forestry (silvacultural) activities should be subject to the institution of recognized best management practices for soil and water conservation.

- The majority of future county development should be directed to designated Development Service Districts where public sewer services are in place or planned. The future use of on-site sewage treatment systems should be limited to those areas where public sewage systems are unavailable. Larger concentrations of individual on-site sewage treatment facilities in rural and environmentally sensitive areas should be discouraged through density controls, particularly in areas with soils constraints for septic systems.

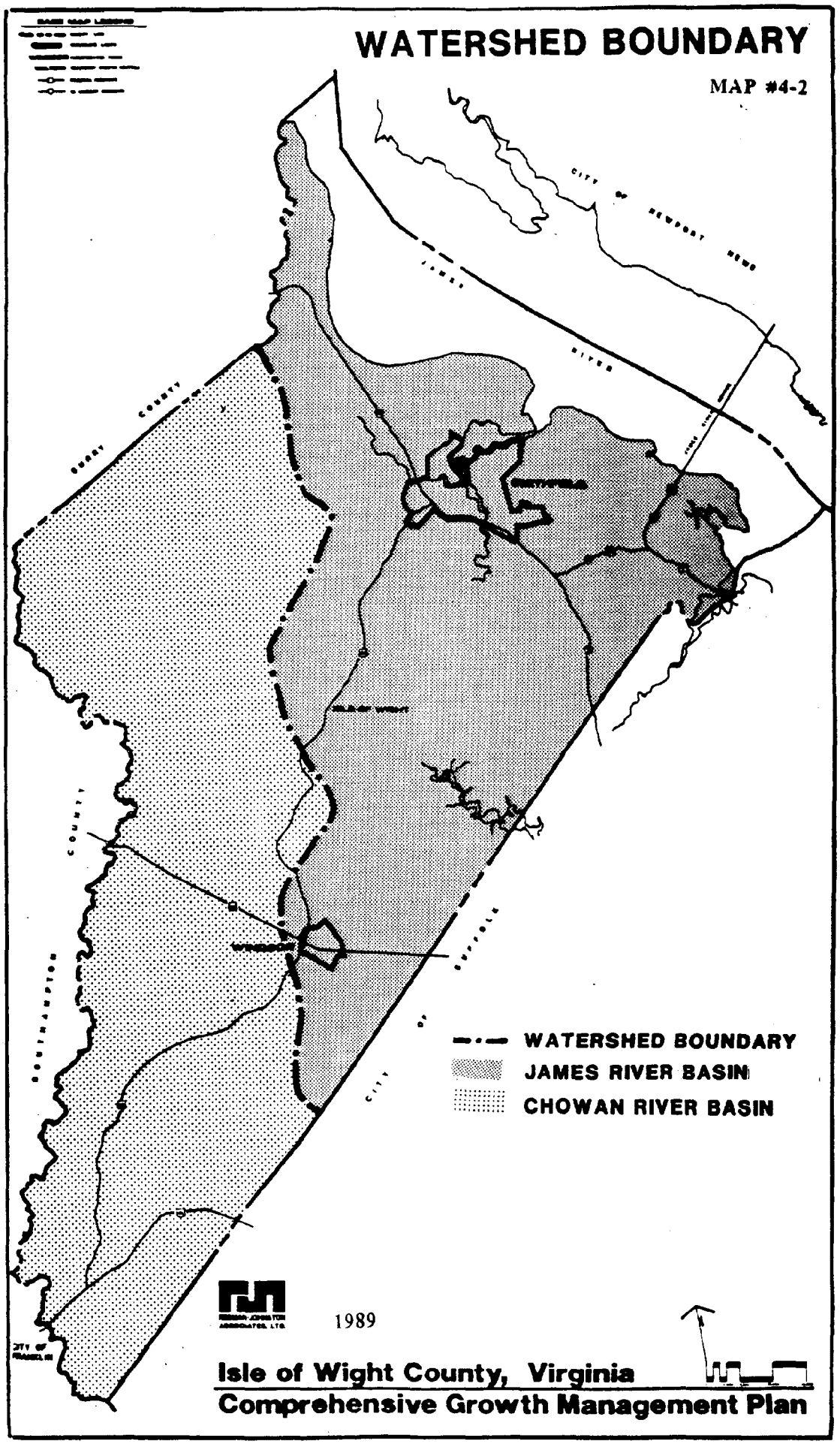
- The County should explore the development of alternative drinking water supplies in areas where groundwater levels and quality are decreasing. This includes fostering interjurisdictional cooperation for development of potable water supplies.

- The County should coordinate with state and federal agencies and non-profit conservancy organizations to protect environmentally sensitive lands through acquisition and/or protective easement programs.

Summary

This plan chapter discusses the characteristics of environmentally sensitive County lands and waters. It describes some of the important reasons for protecting the various natural features which comprise and contribute to the quality of the Isle of Wight environment. Goals and objectives are established for preserving environmental quality. Recommended actions are stated which should achieve County goals and objectives. Particular focus is accorded to Comprehensive Plan requirements of the recently enacted Chesapeake Bay Preservation Act and Regulations.

In summary, the environmental attributes of Isle of Wight County strongly influence quality of life. The condition of the environment must be evaluated in terms of the potential impact upon the daily activities and the standard of living of the community. Environmental resources should be protected on behalf of the economic well-being of the general public with regard to both individual property interests and collective taxpayer investments. The quality of Isle of Wight's environment is one of the factors which makes the County such a desirable place to live and work. The intent of County environmental protection measures is not to stop development, but rather to ensure the compatibility of development with the continued productivity and value of environmentally sensitive land and water areas.


WATERSHED BOUNDARY
MAP #4-2
WATERSHED BOUNDARY
JAMES RIVER BASIN
CHOWAN RIVER BASIN
1989
Isle of Wight County, Virginia
Comprehensive Growth Management Plan

Chapter 5

Transportation

'Chapter 5: TRANSPORTATION

Introduction

Though the Virginia Department of Transportation (VDOT) has primary responsibility for the highway system, Isle of Wight County is a strong partner in transportation planning. This occurs because of its role in identifying highway improvement needs and its policies and regulations which guide land use and development in the County. Isle of Wight County's transportation system for the year 2010 requires special consideration for growth management issues. From the analysis and the discussion of growth management three important transportation planning directions seem apparent:

1. The capacity of the major arterials is key to growth management of the County and should be carefully conserved. This implies strict access control and residential and nonresidential design standards that emphasize internalization of circulation systems.

2. Within the designated growth areas, pre-planned expansion of the highway system is required to ensure that the function and viability of the growth centers do not impact negatively on the quality of life.

3. Increasingly, the private sector will have to be part of the solution of transportation issues, including financing and other transportation systems modifications.

Beyond a strict capacity-based approach to highway systems evaluation, consideration of the impact of roads and traffic on community character also needs to be considered. This is particularly true in the rural villages where development historically has been heavily highway oriented. Stripping the rural roads of the County with residential and nonresidential development will undoubtedly result in a loss of the rural character that the County wants to retain. In the village centers, the evolution of the local road system will heavily influence the form of future development. Access control policies will in turn influence the future local road systems.

This element of the Comprehensive Plan sets the framework for addressing the growth management considerations discussed above. The goals and objectives statement provides the general guidance for developing more specific policies and implementation tools. Background for transportation planning is provided through an assessment of the existing transportation network, of highway capacity, of safety conditions and of planned improvements to identify the issues, problems, and opportunities. Finally, this element uses the current traffic situation in Isle of Wight County as the basis for developing short and long term strategies to satisfy year 2010 needs.

Background Information

Functional Classification of Highways

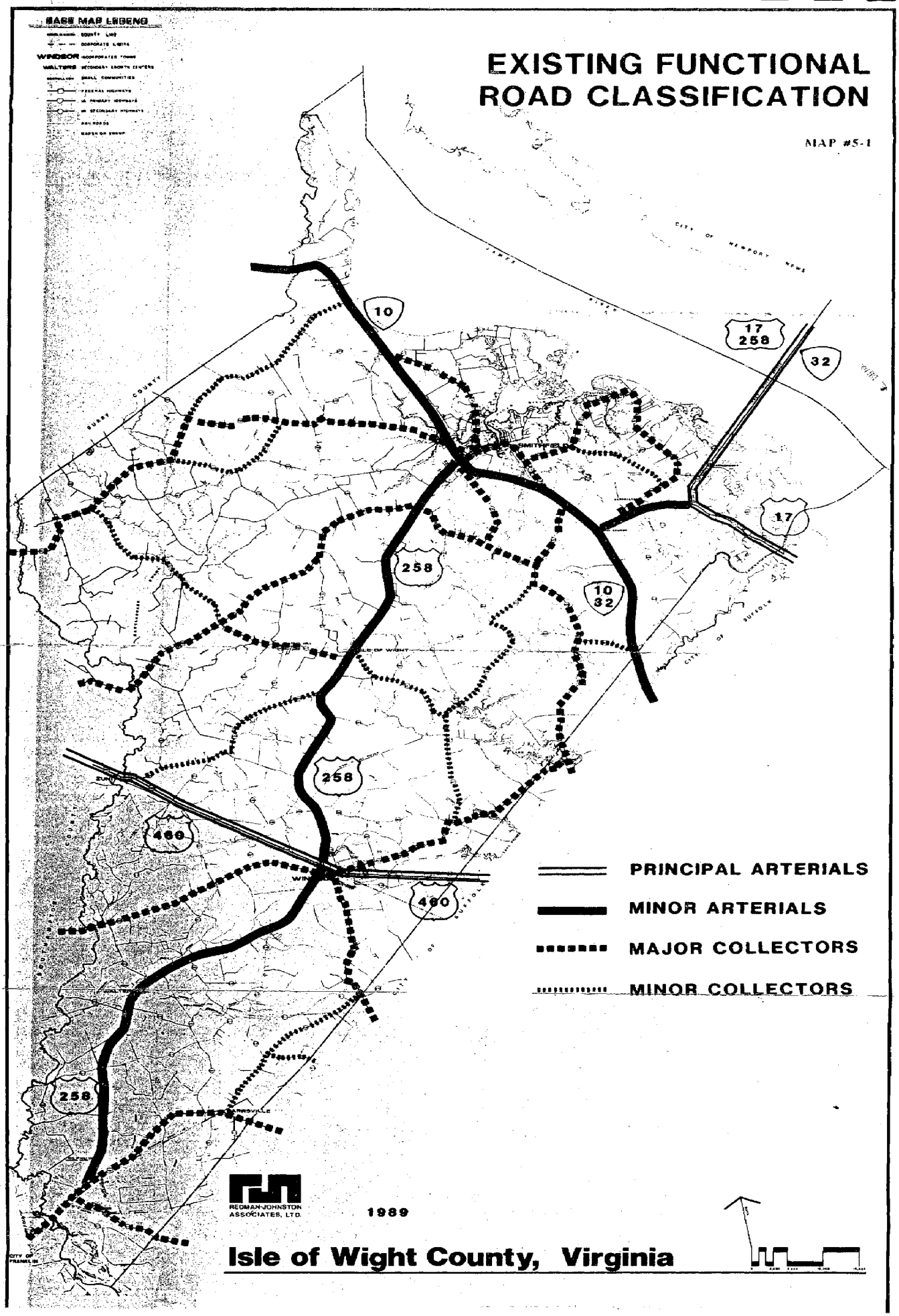
The skeletal framework of the County's highway system is the arterial and collector highways shown on Map 5-1. The map also reveals that the majority of the highway system is composed of local roads and secondary highways primarily functioning to provide access to individual properties. Based on the Functional Classification of Highways described above, the following characterizes the basic highway network in the County.

Principal Arterial: Carries a high volume of traffic for intra-state, inter-county and inter-city travel. Traffic on this type of road normally has the right-of-way except in areas of high hazard, then controls are used.

U.S. Route 17
U.S. Route 460

Minor Arterial: Carries a high volume of traffic for intra-county and inter-community travel. These roads normally serve the higher classification roads providing access to and from the arterials.

North/South Routes	East/West Routes
VA. Route 10	
VA. Route 32	
U.S. Route 258	


EXISTING FUNCTIONAL ROAD CLASSIFICATION
MAP #5-1
BASE MAP LEGEND
PRINCIPAL ARTERIALS
MINOR ARTERIALS
MAJOR COLLECTORS
MINOR COLLECTORS
10
17
258
32
460
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Major Collector: Serves intra-county and inter-community travel, but at a lower volume, and usually connects to an arterial to provide access to the surrounding land. Access is not directly from this road but from a sub-road connected to the collector. They may serve community shopping areas, schools, parks and cluster developments.

North/South Routes	East/West Routes
VA. Route 644 and 602	VA. Route 620
VA. Route 610	VA. Routes 621 and 626
VA. Route 10 Business	VA. Routes 704/665
U.S. Route 258 Business	VA. Route 603
U.S. Route 58 Business	VA. Route 637
VA. Route 616	
VA. Route 617	
VA. Route 655	

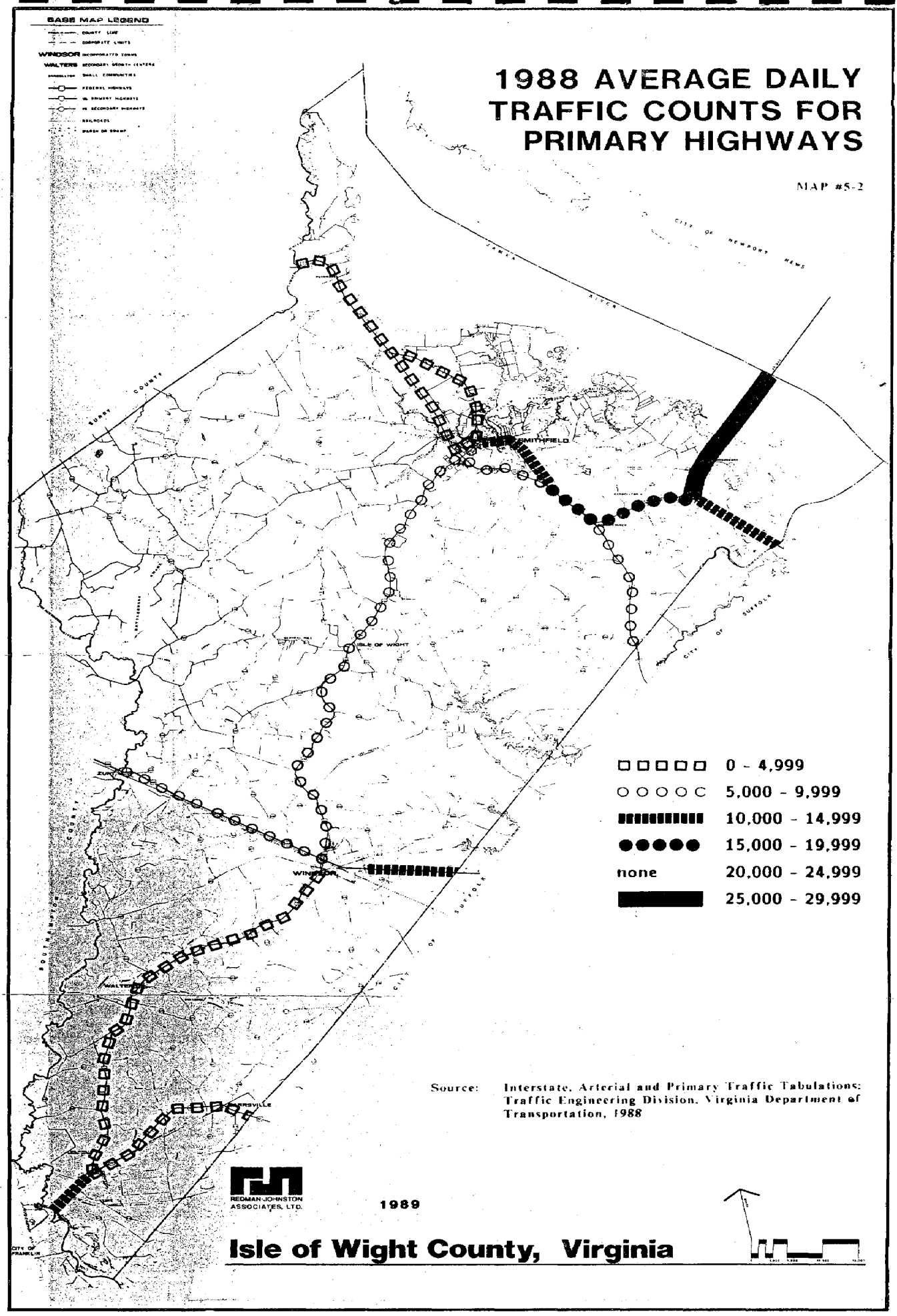
Minor Collector: Serves intra-community travel at a volume below the major collector. Provides access to the land using lower order roads and sometimes direct access from itself. (See Map 5-1 for designated routes.)

Traffic Volumes and Trends

Average daily traffic (ADT) on roadway segments, available from VDOT (1988), is plotted on Map 5-2, Average Daily Traffic Volumes. Total average daily traffic (ADT) on U.S. Route 17 exiting the County exceeded 25,000 vehicles per day in 1988. These volumes and locations reflect the importance of this route as a major connector to the City of Newport News and a commuter route to work places north and east of the County. Other heavy traffic volumes, associated with recent growth and the commuting patterns, occur in the northern part of the County. Routes 10 and 32 from Smithfield to Route 17 carry volumes of 15,390 and 17,125 respectively. These highways have increased in traffic by 5.0 to 5.5 percent from 1987 to 1988. Route 10 Business south of Smithfield has a volume of 12,470. In the Windsor area, Route 460 sees heavy traffic from Windsor east to Suffolk at 12,845 vehicles per day. Route 58 Business leading south into Franklin carries 11,540 vehicles. Route 258 from Smithfield to Isle of Wight increased 5.5 percent during the past year. If these

1988 AVERAGE DAILY TRAFFIC COUNTS FOR PRIMARY HIGHWAYS

MAP #5-2



Source: Interstate, Arterial and Primary Traffic Tabulations; Traffic Engineering Division, Virginia Department of Transportation, 1988

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Isle of Wight County, Virginia

rates of traffic increase continue, the excess capacity the County now enjoys will soon be depleted.

Figure 5-1 shows projected increases in average daily traffic for selected road sections on the County's federal-aid highways. The projections on these routes have been modified by the impact of the future completion of Interstate 664.

Figure 5–1

PROJECTED TRAFFIC ON FEDERAL–AID HIGHWAYS FOR SELECTED ROAD SECTIONS

Route	From	To	1987	1988	2010
460	Suffolk	Windsor	12,185	12,845	20,000
460	Southampton	Windsor	8,935	9,435	14,700
17	Rt. 258	Newport News	24,045	25,400	30,000
17	Rt. 258	Suffolk	13,145	13,815	25,000

Source: Virginia Department of Transportation

Capacity Analysis

Levels of service are often used as measures of system performance in transportation planning analysis and to define public policy concerning highway performance. (See the Technical Report for a definition of level of service descriptors.) They are also used in traffic impact analyses to determine local traffic impacts of proposed developments. Definitions of level of service differ for intersections and roadway segments, for city streets, and for controlled access highways. In urban and suburban areas, where intersections are closely spaced, traffic signals usually govern arterial and street capacity. Route 10 in the Smithfield area is an example of this situation. Thus, in urban and suburban locations roadway adequacy is assessed at intersections in the traffic impact analysis process.

Figure 5-2 lists the existing level of service (LOS) for selected intersections in the County. Based on the traffic volumes identified on Map 5-2 and the LOS indicators, the County's highway system generally contains excess capacity to accommodate future growth. It is also clear from these analyses that the existing conditions for many of the intersections and road sections warrant the targeting of programmed State short- and long-range transportation improvement projects. For example, Route 258 and Route 709 were operating at LOS D in 1988. The intersection of Route 704 and Route 669, also in the northern part of the County, is currently nearing capacity.

Figure 5-2
EXISTING LEVEL OF SERVICE (LOS)
for SELECTED INTERSECTIONS
ISLE OF WIGHT COUNTY

Intersection	LOS	Date of Study
Route 10 Bypass @ Route 258	B	1988
Route 258 @ Route 655	B	1988
Route 258 @ Route 709	D	1988
Route 10 @ Smithfield Shopping Center	B	1989
Route 704 @ Route 669	E	1989
Route 10 @ Route 676	B	1987
Route 460 @ Route 636	B	1988

SOURCE: Existing conditions from recent traffic impact studies submitted to the Office of Community Development, 1987 - 1989.

Map 5-4 shows the road sections that have been identified as below LOS C. [1] A portion of Route 10/258 is operating at LOS E; much of Route 258 south of

[1] LOS analysis performed by Redman/Johnston Associates, Ltd. generally used the highway system planning technique for rural two-lane highways described in the Highway Capacity Manual, Special Report 209, Transportation Research Board. The procedure is intended for general planning and policy studies. Traffic, geometric and terrain data have been generally classified. The planning criteria also assume a typical mix of 14 percent trucks, 4 percent RVs, and no buses. A 60/40 directional split is used, along with percent no passing zone values of 40 percent for rolling terrain since State Highways generally meet minimum design standards. Ideal geometrics of 12-ft lanes, 6-ft shoulders, and 60-mph design speed were used. Since conditions will vary within the County, an operational analysis would need to be conducted for precise design treatments or specific impact analysis.

Smithfield is rated at LOS D. Though the Smithfield area is the most noteworthy in terms of limited capacity, other areas of the County need to be monitored for capacity constraints when considering future land uses. Route 460 east of Windsor has been identified in VDOT's most recent needs inventory as requiring an upgrade to five lanes. Route 258 North of Franklin is carrying more than 10,000 vehicles per day and is functioning at LOS E.

Figure 5-3
HIGH ACCIDENT ROAD SECTIONS*
ISLE OF WIGHT COUNTY

Road Section			Total	Accident	Injury
Route	From	To	Accidents	Rate	Rate
258	WCL Windsor	Route 460	2	726	363
258	WCL Smithfield	W Route 258 Bus	11	631	516
10	Route 258A	NCL Smithfield	5	408	163
B258	Route 10 Bus	Route 258	30	285	104
10	N Route 10 Bus	Surry CL	14	221	221
A258	Route 258 Bus	Route 10 Bus	1	203	201
258	E Route 258 Bus	SCL Smithfield	3	182	182
258	Route 460	ECL Windsor	1	174	349
258	ECL Windsor	Route 610	2	148	148
10	NCL Smithfield	N Route 10 Bus	6	119	138

* Road sections included are those primary highways which exceed the State average accident and/or injury rates. The State average for accident rates is 207; the State average for injury rates is 129.

SOURCE: 1987 Summary of Accident Data, Virginia Department of Transportation

Safety

Annually, the Traffic Engineering Division of VDOT monitors and summarizes motor vehicle accidents that occur along identified road sections. The accident, injury and death rates are calculated by dividing the total number of accidents, people injured, or people killed by the annual vehicle miles of travel at a location. Rates are expressed per 100-million vehicle miles of travel. The accident rates for primary highways in the County are shown on Map 5-3. Map 5-3 also shows that the highest rates are in or around the towns of Smithfield and Windsor. The accident rate is used for establishing priorities only and not for comparing the safety performance of different intersection and road design types.

High-accident road sections, for the purpose of this analysis, will include those road sections that exceed the State average accident and/or injury rates. The 10 highest accident rate-road sections, ranked by accident rate, are shown on Figure 5-3. The highest accident rate in the County occurs on Route 258 in Windsor; the highest injury rate occurs on Route 258 in Smithfield; Route 258 Business between Route 10 Business and Route 258 had 30 accidents in 1987. None of these road sections has been identified by VDOT for inclusion in the federally funded Hazard Elimination Program.

Commuter Patterns

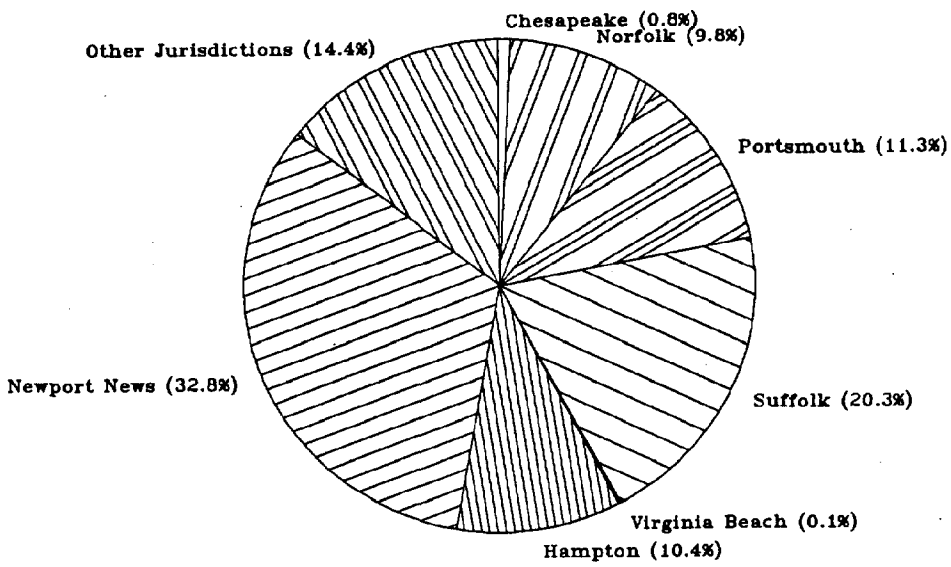
Although work trips generally represent about 28 percent of all trip purposes, they provide data during a time of day in which transportation facilities are most heavily used. Origin/destination information from 1980 on Isle of Wight County work trips indicate some interesting patterns. Commuting patterns indicate that Isle of Wight County is a net exporter of commuters. Of the 9823 workers responding to the survey, 4086 involved residents of Isle of Wight County working outside the County while 2846 workers commute into Isle of Wight County. The remaining 5737 commute within the County.

Commuting patterns to the Norfolk-Virginia Beach-Portsmouth and Newport News-Hampton Roads Standard Metropolitan Statistical Areas (Figure 5-4) show that the greatest number of trips originating in Isle of Wight County (1530 or 32.8 percent) are destined to job locations in the City of Newport News. The next largest share

of out commuters is to the City of Suffolk (828 or 20 percent). A significant number commuted to Norfolk (402) and Portsmouth (463) as well.

Figure 5–4

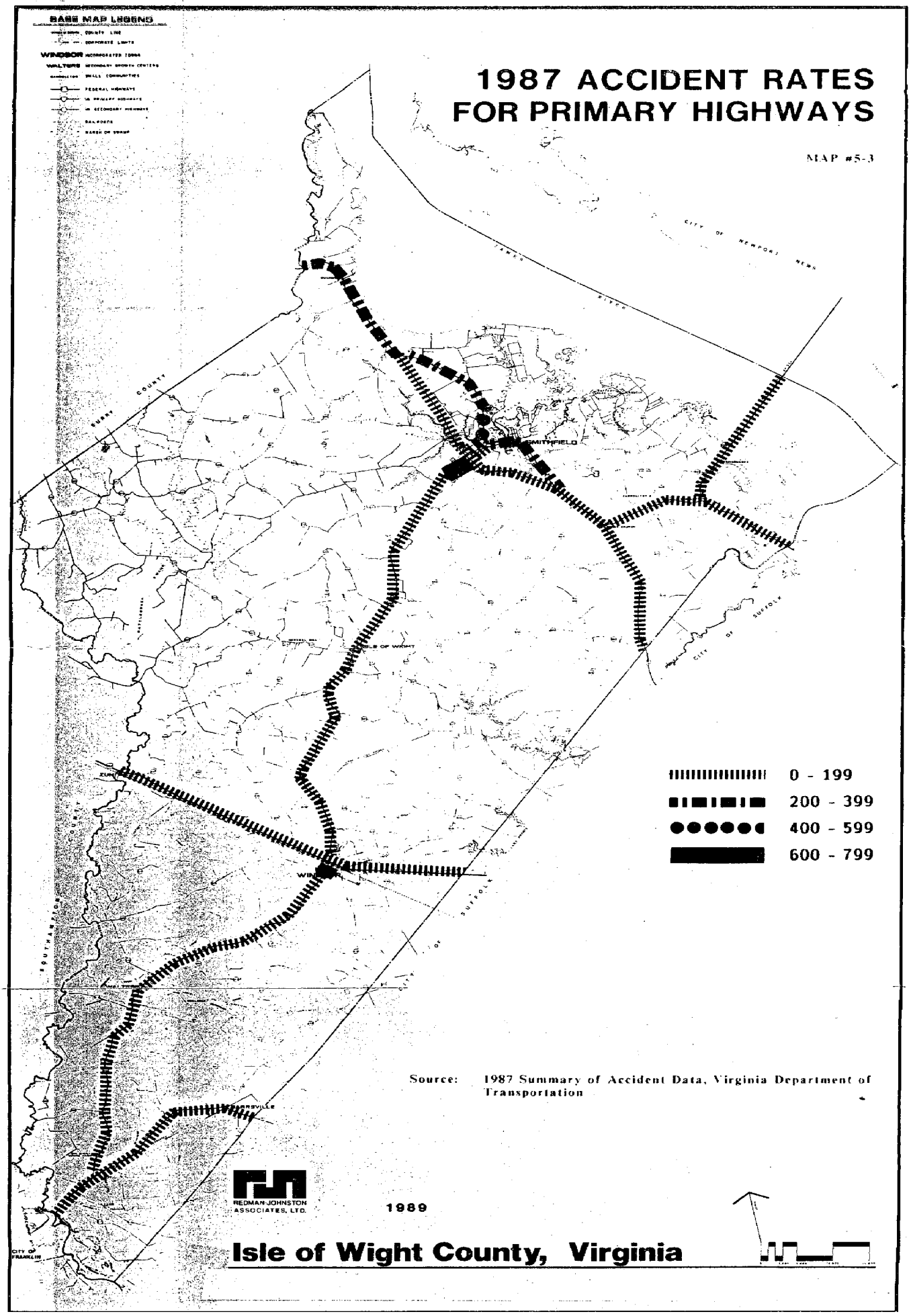
COMMUTER PATTERNS
ISLE OF WIGHT COUNTY



Many new residents moving into Isle of Wight County are oriented to long-distance commuting and subsequently generate the greatest impact on the arterial routes serving the area, including Routes 17, 10 and 460. Thus commuter trips will continue to contribute to a major proportion of congestion and to unfavorable travel times to employment centers non-work travel times within the County. One objective of the County might be to examine ways to encourage a reduction in the use of single-occupancy vehicles. To maintain quality transportation service in Isle of Wight County, strategies must be developed to provide incentives that would encourage commuters to switch to higher-occupancy alternatives. Traffic congestion, reduced travel times and costs are major issues that will face Isle of Wight County as the existing excess highway capacity is rapidly depleted by future growth.

1987 ACCIDENT RATES FOR PRIMARY HIGHWAYS

MAP #5-3



Source: 1987 Summary of Accident Data, Virginia Department of Transportation

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Highway Improvements

Through its Six Year Improvement Program, VDOT sets priorities for the funding and construction of improvements to the Primary and Urban Highway Systems in Isle of Wight County. The FY 89 Thru 94 Program identifies the following projects:

- The construction of a parallel two-lane bridge across Chuckatuck Creek on Route 17, to be completed 1994.

- Completion of Phase II of the Route 58 and Route 258 Connector by adding two lanes, to be completed by 1993.

- The reconstruction of S. Church Street in Smithfield from Cypress Creek to Route 10 Bypass, to be completed 1994. Whether this improvement will be three or five lanes is still to be determined.

The County and the State have jointly developed a Capital Improvement Program for the Secondary Highway System. Proposed funding for this six year program totals $6.2 million. The projects are widely distributed throughout the County. The focus of this ambitious program is to maintain and improve the secondary road system by resurfacing, reconstructing existing facilities and improving access in the rural areas. Many of the reconstruction and widening projects will make incremental increases to the capacity of those rural highways.

Other Transportation Facilities and Services

Bus Service

Trailways offers intercity connections. The County is also included in the Newport News commercial zone for intracity access. In 1982 the Southeastern Virginia Planning District Commission (SVPDC) prepared a feasibility study of public transportation and ridesharing in the region, which includes Isle of Wight. Through a demand analysis, the Smithfield area was categorized as a "Priority 2" subarea and the Windsor area a "Priority 3" in terms of potential for transit service. Among the highway routes evaluated, Smithfield to Franklin ranked as a "Priority 4" (lowest).

Rail Transportation

There is no commuter rail service in Isle of Wight County. Norfolk Southern Corporation offers freight, passenger, and piggyback service through three subsidiaries operating in the County. CSX Corporation offers freight and piggyback service.

Air Transportation

Norfolk International Airport, approximately 40 miles from County lines, offers 200 flights via eight airlines. Patrick Henry International Airport, approximately 19 miles out of the County, offers 23 flights via two airlines. Both airports handle air freight traffic.

There are also two municipal airports which serve County residents: John Beverly Rose Airport has a 5,200-foot paved, lighted runway; Suffolk Municipal Airport is slightly smaller. Both have fuel available. Two private airstrips within the County also provide service: the Orbit Air Strip and Aberdeen Farm Strip.

Water Transportation

There are presently no commercial port facilities located in Isle of Wight County. The James River, with its 35-foot channel at the County's northern boundary, offers direct access to major port facilities nearby in Hampton Roads, where the river's channel deepens to 45 feet. The local Pagan River has a 10-foot channel.

Issues

Isle of Wight County's transportation system for the year 2010 requires special consideration in view of several emerging issues:

- Increased development along the U.S. 17 corridor in the northern part of the County will erode safe and efficient operation in this segment if not properly managed.

- Increased through traffic, combined with increased local traffic on Routes 17, 460, 10 and 258 may require additional capacity be added on these highways.

- Most county secondary roads have limited capacity to support substantial increases in traffic volumes as a result of local land uses.

- A reduction in federal funding for roadways places more financial responsibility at the state, county and local levels -- as well as with private developers -- to fund new roadways and roadway improvements. Roadway construction funds must, therefore, be carefully expended, and road needs carefully identified and programmed.

- Such issues lead to more concern about the ability of the existing roads to serve current and projected new development traffic in terms of control of access along principal corridors such as U.S. 17 and 460.

- Current development patterns will not support a major investment in transit service in the County. If transit is ever to become a viable alternative travel mode in Isle of Wight County, the land use plan must establish areas along major transportation corridors at high enough residential and employment densities to support such service.

- Congestion of the County's arterials is not solely the product of too much volume, but also of too many conflicting turning movements at intersections and driveways. This side friction inhibits the safe and efficient flow of traffic.

Adding the Interstate 664 crossing will provide some benefits to the County by facilitating the free movement of commuters to and from the Hampton Roads-Newport News area, thus relieving some burden from the limited-capacity U.S. Route 17 facility. Economic development benefits will be derived from the improved linkage to the industrial growth phenomenon of this area.

Goals and Objectives

In order to provide direction for improvements to the County's transportation system, the following goal has been established:

To provide the safe and efficient movement of people and goods throughout the County.

The following objectives can be used to achieve the goal:

- Plan roadway development to support and enhance the Growth Management Plan and Future Land Use Plan.
- Maintain and improve existing transportation facilities efficiently to meet increased demand.
- Require development to pay its "fair share" of the costs associated with the resulting increased demand on transportation facilities.
- Develop a circulation system that encourages the separation of through traffic from local traffic.
- Require that subdivision roads be planned, constructed, and maintained according to County and State Department of Transportation standards.
- Encourage limited access management along principal corridors; discourage strip development on secondary corridors.
- Decrease levels of commuter traffic during the a.m. and p.m. peak traffic hours.
- Preserve and enhance opportunities for greater use of the County's rail and airport facilities.
- Decrease the need for automobile trips by providing mixed-use developments, pedestrian accesses, and bike paths.

Implementation Recommendations

The Implementation Plan is broken into two subsections: the Policy Statement and the Transportation Plan. The Policy Statement provides a framework to strategically

adapt the County's transportation system to address specific development problems unique to a given locale. The Transportation Plan identifies both needs and planned improvements in order to create a transportation network that is consistent with the objectives and implementation of the Land Use Plan.

The transportation plan cannot succeed without proper support and leadership from County government. The following implementation strategies establish the policy framework from which the County will create and maintain a functioning transportation system within the context of planned growth in the County.

- **Capital Programming** -- Capital programming has been recognized as a proactive way of avoiding some of the past transportation capacity problems. To ensure that opportunities for pre-planned expansion are not missed, the County will require the annual revision of the County's Capital Improvements Program to be coordinated with the Comprehensive Plan and any recommended amendments resulting from the annual review of the Plan and planning process. It is the responsibility of the Department of Community Development to monitor changing growth and development trends in the County and to advise the County Public Works Department and State Highway Administration accordingly. The annual process involving the Department of Community Development, the Department of Public Works, and the State Highway Department will evaluate the relationship between the State's available resources and the demands upon the County's road systems created by proposed land uses and land use trends.

  The County should begin platting rights-of-ways for new roads and streets when the land use patterns allow. The annual Capital Improvements Budget should include funds for the design of proposed road improvements so that adequate rights-of-ways can be reserved. This will also permit the coordinated completion of the improvement if undertaken by different entities such as private developers. Pre-planned expansions should be made in development centers such as the development districts, activity centers, and villages in order to identify the need for future roads.

- **Increased Coordination of the Land Use/Transportation Planning Process**-- More emphasis should be placed on coordination between the County, VDOT,

and SVPDC staffs on matters related to planning and programming improvements and transportation systems management. There are several steps that can be taken to improve the current transportation planning process: the State and County should work very closely together to evaluate the transportation system implications of the County's new growth plans; elected officials should be major participants in this process; and coordinated State and County transportation management policy should recognize the need to expand upon the current level of commuter ridesharing in order to reduce single-occupant vehicles. This is particularly important at the intersection of major collector highways serving commutersheds and U.S. Route 17.

- **Quality of Service/Adequate Public Facilities Standards** -- The County's LOS policies establish a recognizable basis for evaluating alternative plans and/or policies. LOS policies provide the basis and criteria on which to evaluate alternatives and to determine capital requirements. With establishment of LOS policies, the County makes a clear statement to developers and reflects the public's expectations about the quality of highway service it expects to achieve or maintain as growth occurs. With level of service established, the County then has a policy based, quantified capacity measure from which to assess the traffic impacts of new developments. Whether or not a particular development will generate traffic that will exceed the capacity of the road can be determined from analysis, and the question of road impacts is then no longer subjective.

- **Traffic Impact Analysis** -- As part of the Zoning process and implementation of the LOS Policy, the County should require a traffic impact analysis of all major new projects. This analysis will be used to determine if post-development traffic levels and patterns will be consistent with the County's Transportation Plan and highway policies and will minimize potential safety and congestion problems. At a minimum, the traffic analyses should include a description of past and present roadway conditions, existing roadway capacity, traffic accidents, existing and projected traffic volumes (ADT and peak a.m. and p.m. traffic), existing and projected levels of service, and existing and proposed sight lines based on facts and reasonable generation factors for the site and the immediately affected road networks and intersections. Where the County has

short-term planned improvements scheduled, the development may include such improvements in the traffic impact analysis. The County shall adopt precise standards for the preparation of these analyses.

o **Access Management** -- An access management program should be created, initiated, and supported by appropriate ordinances to ensure that access is not unnecessarily violated along key road links or near major intersections, particularly along the designated Highway Corridor Districts.

The following techniques should be considered in managing access to principal corridor roadways.

- Limit the number of conflict points by installing physical barriers, modifying driveways, and installing signals at entrances, etc.

- Separate basic conflict areas, by regulating the minimum spacing of driveways, by spacing driveways optimally in the permit authorization stage, by consolidating access for adjacent properties, by buying abutting properties, by denying access to small frontage parcels, and by requiring access via collector streets, i.e. service roads, etc.

- Minimize the need to decelerate in traffic by geometrically designing access points.

- Remove turning volumes or queues from sections of the through lanes by pavement marking alterations, geometric design modifications, right-of-way acquisition (including acquisition for such techniques as constructing a service road or bypass road), or requiring adequate internal site circulation.

- Adopt guidelines for access type and minimum spacing of intersections.

Zoning and Subdivision provisions should require that development project design minimize left turn movements or conflicts both on the site and in the street.

Driveways should be designed to achieve clear sight lines based on design speeds as adopted by VDOT. Site access and circulation should conform to the following standards:

- Where reasonable access is available, the vehicular access to the site should be arranged to avoid traffic use of local residential streets situated in or bordered by residential districts.

- The road giving access to the site should have sufficient traffic carrying capacity and be suitably improved to accommodate the amount and type of traffic generated by the proposed development.

- Where necessary to safeguard against hazards to traffic and pedestrians and/or to avoid traffic congestion, the County should require that provisions are made for turning lanes, traffic directional islands, frontage/service roads, driveways, and traffic controls within the road.

- Access driveways should be designed with sufficient capacity to avoid queuing of entering vehicles on any road or street.

o **Commercial and Industrial Parks** -- Linear development should be discouraged and interior uses encouraged when developing in planned parks where access control is efficient and where interior roads, rather than arterial or collector roads provide access to each use. This land use technique will discourage shallow strip development. Much deeper commercial zoning permits effective site design and maximizes the use of each access point. Just as shopping centers, office parks, and industrial parks function on the basis of a known location, so can general commercial. When between two and five commercial uses can use a single access, substantial improvement to the flow of traffic can result.

o **Highway Corridor Overlay Zoning** -- Overlay zoning brings to the area additional requirements and standards above those of the underlying zone. Special transportation related improvements in the Highway Corridor District

shown on the Land Use Concept Plan should include access controls and transportation impact analysis for high-volume uses.

- **Integration of Land Uses** -- Integrating housing into overall design of large scale employment centers will help reduce the need to travel. Homes built within or immediately adjacent to the workplace not only reduce vehicles miles of travel, but also present opportunities for workers to walk or bike to work. Flexibility in zoning will be provided to permit such large scale mixed-use development through floating zones. To minimize noontime travel, the types of uses that should be permitted in a mixed-use project include retail and customer service activities, eateries, convenience retail, financial services, gas stations, photocopy centers and consumer merchandise.

- **Proffers** -- In terms of highways, the County will indicate the need for dedication of rights-of-ways for new roads, for road extensions, and to widen existing highways through the Transportation Plan and Capital Improvements Program.

- **Fiscal Impact Analysis** -- The development of a per-unit fiscal impact of residential and commercial development would provide a rational basis on which to accept proffers from developers. It is intended that the fiscal impacts be calculated for roads. Though impact fees are not expressly authorized for Isle of Wight County, the detailed impact analysis will establish the basis for such fees once the County is enabled by the State legislature. State enabling legislation does allow for the voluntary funding of off-site road improvements and reimbursements of advances by the governing body (Section 15.1-466 E of the Code of Virginia). The standards for determining the reimbursement in State law are basically the same as those that govern the development of impact fees. The fiscal impact analysis should be used as a basis for proffering under this statute. An Impact Fee system, requiring developers to pay for areawide transportation improvements based on the estimated amount of traffic their project will generate, should be evaluated.

- **Special Service Districts** -- This approach should be used as a financing mechanism when service roads are needed to control access along a highway corridor.

- **Right of Way Reservation and New Road Construction** -- The County will preserve rights-of-way for road improvements consistent with the Transportation Plan Map and the State and County capital improvement programming.

- **Development of Local Circulation Plans** -- Developing traffic circulation plans for each Activity Center, for selected villages, and for a portion of the Development District is needed to provide adequate traffic facilities and access control on a smaller scale.

- **Transit Development** -- The County needs to encourage the development of an adequate bus service for the Development Service District that would reduce inter-county/city traffic.

- **Transportation Management Strategies** -- The County should encourage innovative mechanisms, including private cooperation, and financial support by developers and the business community could be incorporated into financing policies. TMAs have traditionally been a coalition of employers who engage in a wide range of activities including the promotion of ridesharing, the purchasing of vans for vanpools, the financing of areawide street improvements such as signal upgrades, and even the planning for long-range transportation projects.

  Most TMAs are supported through membership fees, sometimes voluntary, more often mandatory. Most TMAs have been initiated by employers within defined geographic area. The northern part of the County, including the Route 17 Corridor, for example, may be a geographic area base for a TMA as it develops.

  Some of the County's larger employers, such as Union Camp Corp. and Smithfield Packing, who want to reduce the number of employees who drive to work during peak hours have the option of implementing relatively low-cost transportation management strategies that would reduce the number of peak-period vehicle trips. The shipyards at Newport News offer an opportunity for

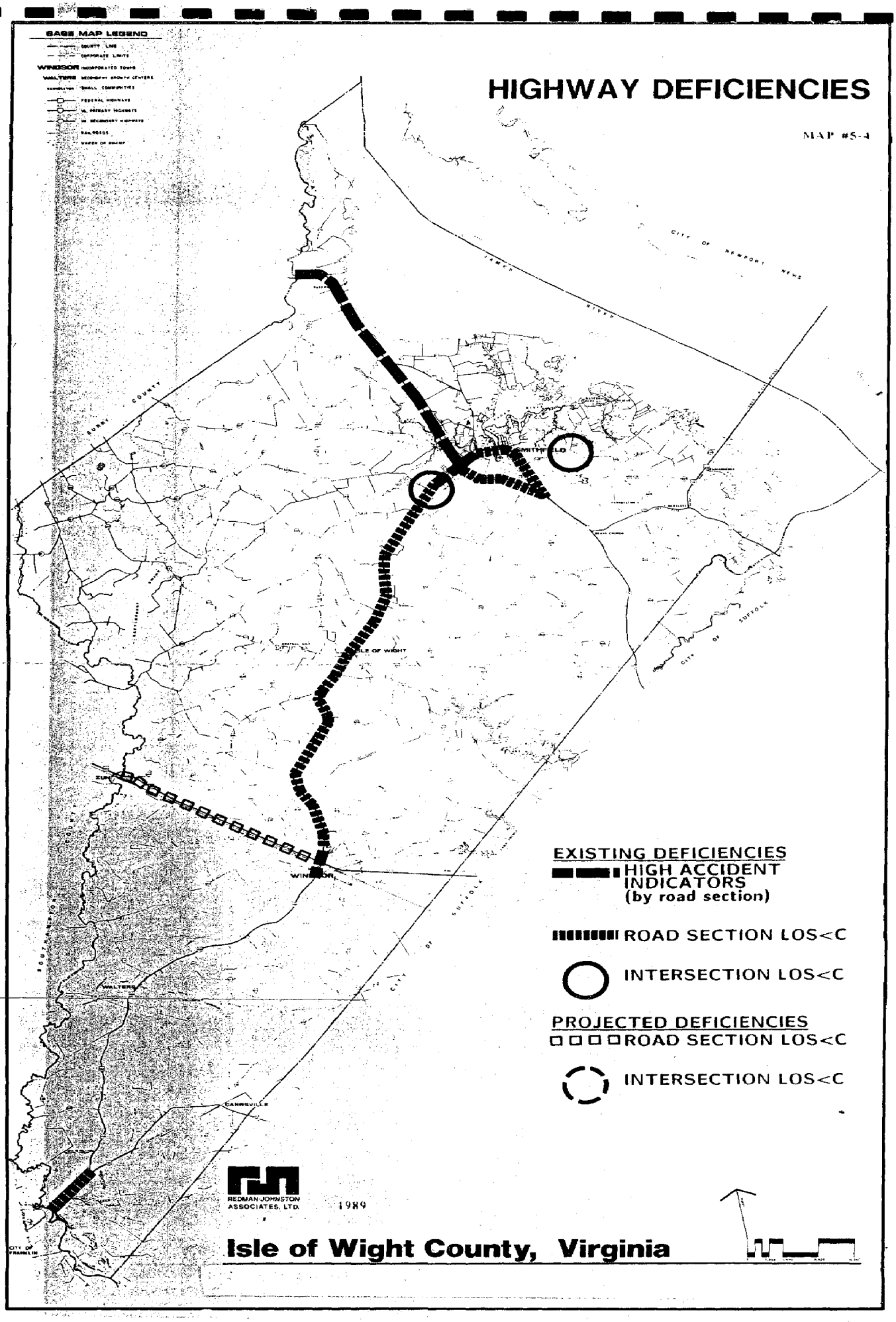
employers to initiate their own transportation programs that will help extend the capacity of the James River Bridge.

Transportation management strategies selected by employers generally provide employees with incentives either to use alternative commute modes or to commute during non-peak hours. These include:

- instituting flexible or staggered work hours;
- facilitating carpool and vanpool formation;
- setting aside preferred parking locations for carpools and vanpools;
- providing company-chartered commuter bus service;
- charging employees for parking;
- building on-site bicycle paths and safe storage areas; and
- providing transit passes or other forms of transit subsidy.

Not all businesses will immediately understand how they can benefit from trip reduction. Educating the private sector is an important part of developing and selling the concept of transportation systems management.

Map 5-4 summarizes the identified highway deficiencies in the County. The Transportation Plan Map (Map 5-5) shows the improvements, both planned and needed, to address the identified deficiencies and other transportation objectives. In addition to the highway improvements, new park and ride facilities need to be planned along the Route 17 and Route 460 corridors. These facilities will accommodate the anticipated growth in the Development Service Districts. Accident and injury rates higher than State averages on Route 10 northwest of Smithfield indicate a need for transportation systems improvements in order to address this safety concern.


HIGHWAY DEFICIENCIES
MAP #5-4
BASE MAP LEGEND
COUNTY LINE
CORPORATE LIMITS
WINDSOR INCORPORATED TOWNS
WALTERS SECONDARY GROWTH CENTERS
SMALL COMMUNITIES
FEDERAL HIGHWAYS
VA. PRIMARY HIGHWAYS
VA. SECONDARY HIGHWAYS
RAILROADS
WATER OR SWAMP
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY COUNTY
SMITHFIELD
ISLE OF WIGHT
CITY OF SUFFOLK
WINDSOR
WALTERS
CARRSVILLE
CITY OF FRANKLIN
EXISTING DEFICIENCIES
HIGH ACCIDENT INDICATORS (by road section)
ROAD SECTION LOS<C
INTERSECTION LOS<C
PROJECTED DEFICIENCIES
ROAD SECTION LOS<C
INTERSECTION LOS<C
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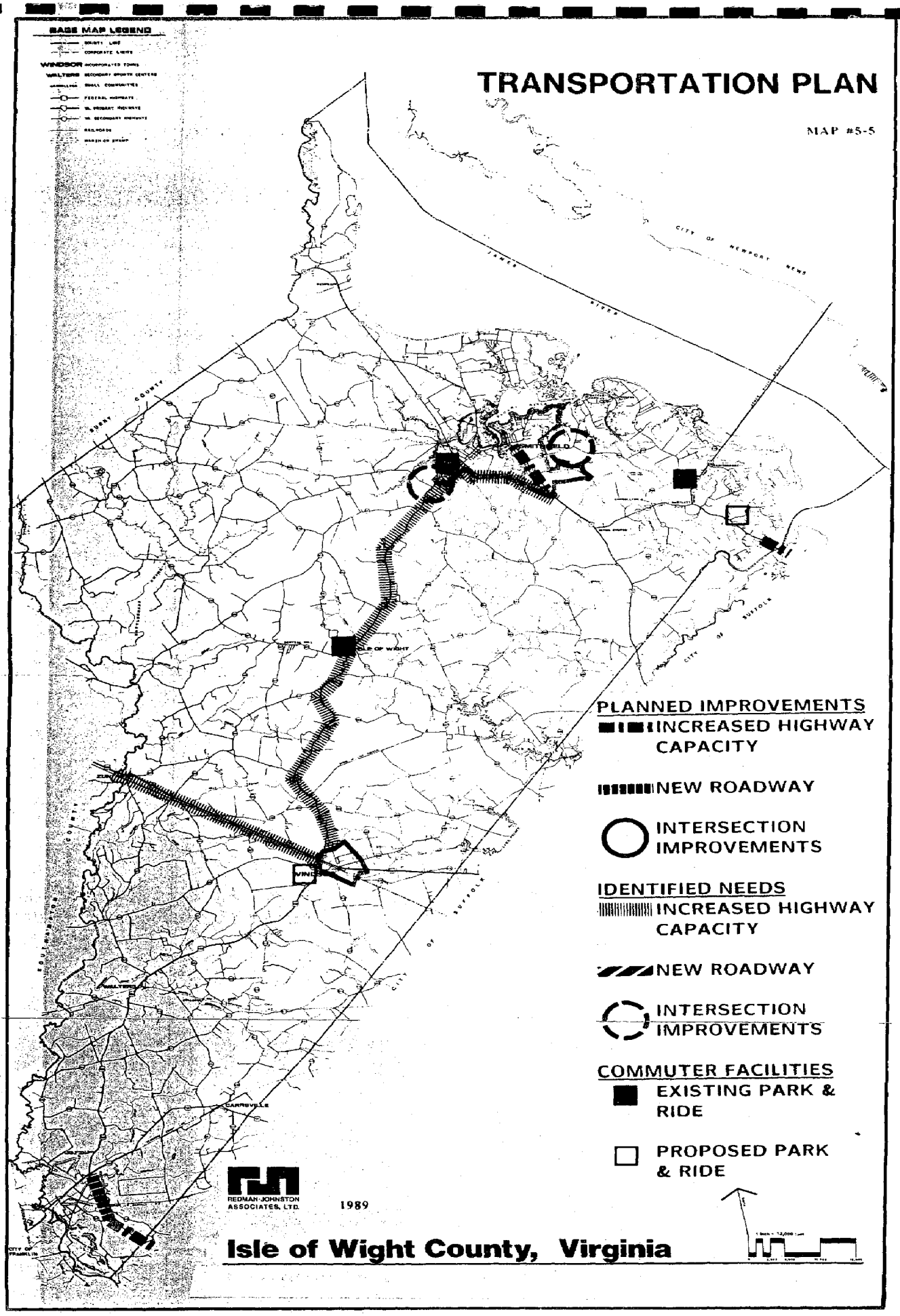

TRANSPORTATION PLAN
MAP #5-5
BASE MAP LEGEND
WINDSOR
WALTERS
CITY OF NEWPORT NEWS
JAMES RIVER
SURRY COUNTY
CITY OF SUFFOLK
ISLE OF WIGHT
CARROLLE
PLANNED IMPROVEMENTS
INCREASED HIGHWAY CAPACITY
NEW ROADWAY
INTERSECTION IMPROVEMENTS
IDENTIFIED NEEDS
INCREASED HIGHWAY CAPACITY
NEW ROADWAY
INTERSECTION IMPROVEMENTS
COMMUTER FACILITIES
EXISTING PARK & RIDE
PROPOSED PARK & RIDE
REDMAN-JOHNSTON ASSOCIATES, LTD.
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Isle of Wight County, Virginia

Chapter 6

Community Facilities and Services

Chapter 6: COMMUNITY FACILITIES AND SERVICES

Introduction

Ensuring that the provision of community services and facilities is phased with the demand or need is a major component of growth management. Community facilities and public services are those minimum facilities and services the County provides for the common good. Generally, public facilities include land, buildings, equipment and whole systems of activity provided by the County on the behalf of the public. The quality of public facilities contributes to the quality of life in the County. Some facilities, such as clean drinking water and adequate sewerage disposal are necessities; while others, such as theaters and parks, are highly desirable for cultural and educational enrichment.

Background/Issue Identification

This section will focus on identifying existing and projected capacity of community facilities to identify the issues and problems of providing these services in the context of the County's projected growth rate and geographic distribution. To begin capacity analysis of the facilities based on growth, we will generally use the population projections shown in Figure 1-4, which shows a 2.6 percent average annual rate of growth to the Year 2010. If other projections are used, they will be so noted.

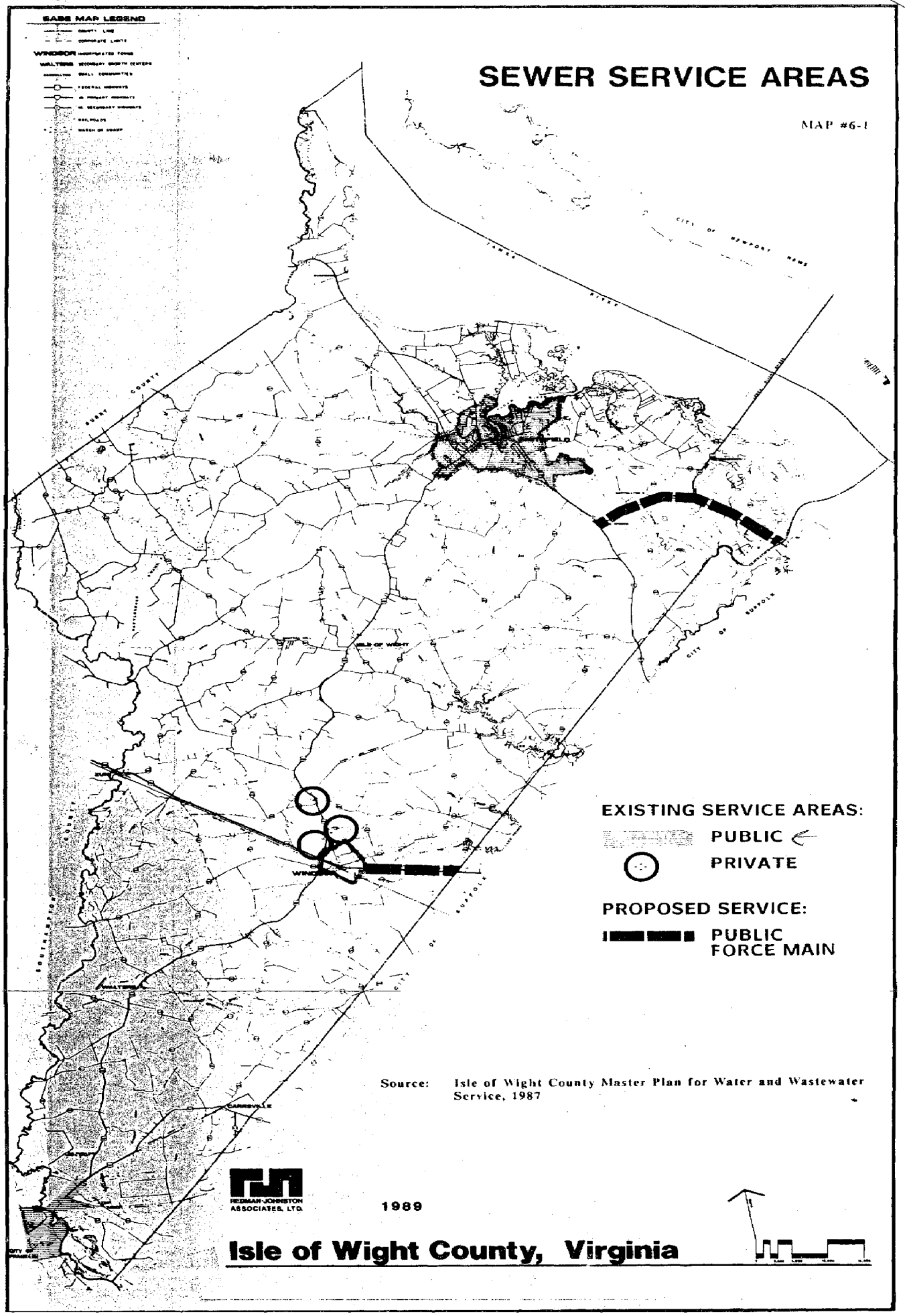
The following is a discussion of the existing capacities and levels of service for selected community facilities and services as well as projected demands. Planned facilities are noted where included in the County's annual financial planning process.

Sewer Facilities

Background Information

The following describes the status of central sewer service within the County. See Map 6-1 for the relative location of each sewer service area.

At present only two public sewerage systems provide sewage collection and treatment in the County. The Town of Smithfield operates a sewerage system which serves developed areas of the Town and parts of the County within immediate proximity to the Town. The Jamestown-Camptown area of the County adjacent to the City of


SEWER SERVICE AREAS
MAP #6-1
BASE MAP LEGEND
EXISTING SERVICE AREAS:
PUBLIC
PRIVATE
PROPOSED SERVICE:
PUBLIC FORCE MAIN
Source: Isle of Wight County Master Plan for Water and Wastewater Service, 1987
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Franklin is tied to the Franklin system. There are some private systems existing within the County that provide sewage collection and treatment; but, the majority of the County is served by individual disposal facilities. At the time of writing of the plan, Queen Anne Court had requested to convey its newly constructed system to the County's Public Service Authority. There had been no final disposition of this request.

The Town of Smithfield operates a 500,000 gallon per day secondary treatment plant. Average daily use is 650,000-850,000 gallons per day. Effluent is discharged into the Pagan River north of the Town. The Towin is currently undergoing an application process to the State Water Control Board for an increase in its discharge permits.

Franklin began treating its collected wastewater in 1950. The existing treatment plant provides secondary treatment of 1,500,000 gallons per day which is 75 percent of its treatment capacity of 2,000,000 gallons per day. The effluent is chlorinated prior to discharge into the Blackwater River.

A cooperative intergovernmental agreement between the City of Franklin and Isle of Wight County allows the City to accept up to 100,000 gallons per day of wastewater. It is estimated that the average flow from the Jamestown-Camptown area of the County is 40,000 gallons per day resulting in a reserve capacity for the County of 60,000 gallons per day.

Private package sewage treatment plants serve about two percent of the County's households. Requests for new package plants are increasing as development of smaller lot subdivisions increases.

The industries within the County treat their sewage using private facilities. Union Camp treats approximately 30 million gallons per day and discharge is to the Blackwater River south of Franklin. The Smithfield meat processing plants also have their own treatment facilities with waste discharges into the Pagan River.

The Hampton Roads Sanitation District (HRSD) Interceptor Feasibility Study for Isle of Wight County and North Suffolk dated June 1988 indicates that it would be feasible to run sewer interceptors from the regional agency's plant in Suffolk to

locations in the County. The Smithfield interceptor sewer would extend from an existing force main on Route 17 at Belleville to downtown Benn's Church. The Windsor interceptor force main would extend from an existing force main at the intersection of Route 10 and Route 460 in Suffolk along Route 460 to the Town of Windsor. See Map 6-1 for the location of these proposed force mains.

Issues

The provision of sewerage and sewage disposal facilities is one of the most powerful growth management tools available to County policy makers. This is especially true in Isle of Wight County, where so much of the desirable residential property is unsuitable for development on septic tank disposal systems. The County's ability to grow depends, to a large extent, upon its ability to provide economical sewer service. If sewer capacity cannot keep pace, growth will be restricted in the sewer service areas and be encouraged in the rural areas.

The proposed HRSD interceptors in the northern and central parts of the County will serve a major portion of the County and provide the potential structure for the County's Development Districts. The regional approach to providing sewer service offers opportunities for cost effective service and eliminates the difficulties associated with getting approvals for additional discharge locations in the Chesapeake Bay ecosystem. Future locations of additional interceptors have profound implications for the amount and the nature of future growth in those areas.

Approximately 85 percent of the residences in the County are served by individual septic tank-soil absorption systems. These systems consist of a septic tank which serves as a settling chamber, a sludge storage tank, and a drainfield which allows dispersion of the settled wastewater through the soils for further treatment before it reaches the groundwater table. The unsuitability of the soils for septic systems in the Smithfield and Carrollton planning areas has made it necessary for development to be on large lots or, at some locations, for development to be forbidden until sewerage takes place. Historically, a number of septic systems in these areas have failed.

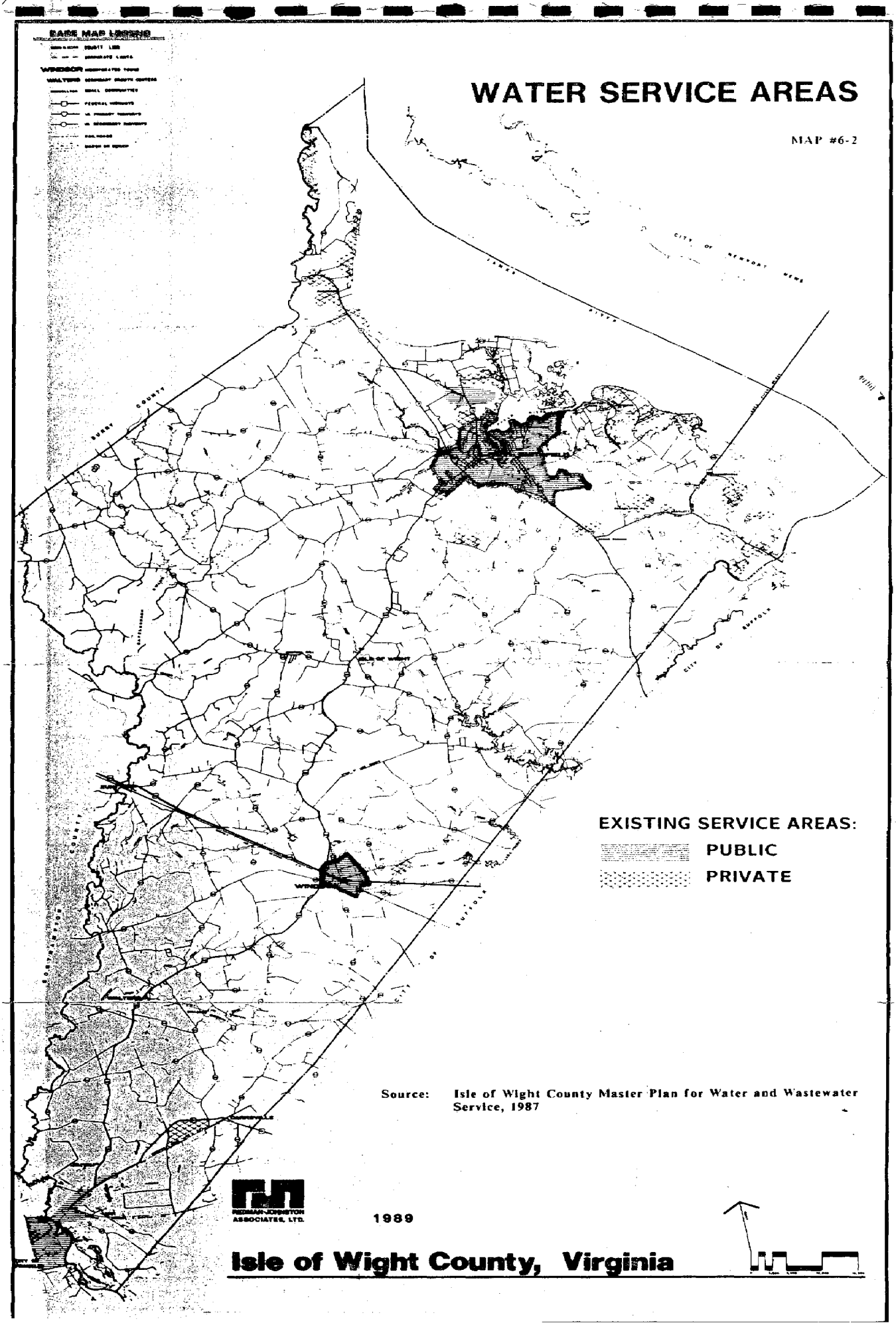
Water Facilities

Background Information

There are a total of 37 community water supply systems (serving 15 or more homes) in Isle of Wight County, only one of which is owned and operated by the County's Public Service Authority. As can be seen from the Water Facilities map (Map 6-2), public water supply systems are very limited or non-existent in the areas outside the incorporated areas in or adjacent to the County. The public water supply systems can absorb additional growth; however, the majority of private water supply systems are not of sufficient capacity to handle increased demands. Forty-five percent of the Isle of Wight County residences are served by community water supply systems.

Though the County's Public Service Authority only owns one water production system, there are several intergovernmental agreements for water service in the County. In March 1988, Isle of Wight County and the incorporated Town of Smithfield reached an agreement in which the Town would extend water lines into the County and that these lines would then be owned and operated by the County. The rate that Smithfield would charge the County would be equivalent to that charged to regular customers within the Town. In October 1988, Isle of Wight County and the incorporated Town of Windsor reached an agreement in which the Town would extend water lines into the County and that these lines would then be owned and operated by the County. Franklin has an agreement with Isle of Wight County which allows the County to benefit from the adjacent system. Within the County, bordering the City, there is a revenue-sharing zone, a zone in which both jurisdictions receive revenue. The Franklin water system extending into the County operates under this arrangement.

In 1987, there was a proposal to extend the water system into areas beyond the revenue-sharing zone in order to be able to promote development in the southern part of the County. However, there was concern about a lack of available capacity from the City of Franklin. In November 1988 it was announced that the City and the County would study a joint water treatment plant. Its existence is dependent on the construction of the water pipeline from Lake Gaston to Virginia Beach.


WATER SERVICE AREAS
MAP #6-2
EXISTING SERVICE AREAS:
PUBLIC
PRIVATE
Source: Isle of Wight County Master Plan for Water and Wastewater Service, 1987
REDMAN/JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

The Town of Smithfield obtains its water from wells. Average daily use is 0.425 million gallons per day which is 8.5 percent of its maximum daily withdrawal limits of 5.0 million gallons per day. Water is stored in overhead tanks with storage capacity totaling 0.62 million gallons.

The City of Franklin's water supply system serves the Jamestown and Camptown areas of the County. Franklin obtains its water from wells. Average daily use is 1.3 million gallons per day which is 26 percent of its maximum daily withdrawal limits of 5.0 million gallons per day. Storage capacity is 0.885 million gallons.

The Town of Windsor, like Smithfield and Franklin, obtains its water from wells. Average daily use is 0.11 million gallons per day which is 69 percent of its maximum daily withdrawal limits. Water is stored in a ground tank with storage capacity totaling 6,000 gallons. In addition to the ground storage tank, the Town also has an elevated water storage tank with a capacity of 150,000 gallons.

Communities having water systems include Battery Park, Benn's Church, Carrisbrooke, Carrollton, Rescue, Rushmere, Carrsville, Central Hill, Collosse, Walters, and Zuni. These community systems utilize wells as their source of water supply. It is estimated that average daily use does not exceed 50,000 gallons per day. These systems are small and well suited for isolated service.

Many individual subdivisions have privately operated water systems. Some of these are Burwell's Bay, Cherry Grove Acres, Day's Point, Owens, Queen Anne Court, Riverview, Rushmere Shores, Smithfield Apartments, Wrenn's Mill, Clydes Dale, Turner, Twin Pond, and Bethel Heights. Water from these privately operated wells is pumped to pressure tanks and their respective distribution systems.

Several substantial industrial users exist in the County. These users create the greatest water demand in the area and satisfy this demand by privately owned and operated wells. The three meat packing plants in Smithfield require a combined total of 2.0 to 2.5 million gallons per day. The Union Camp Corporation's wood products plant near Franklin operates 17 wells producing 30 million gallons per day.

The pipeline to bring water into the region from Lake Gaston is to be built from Lake Gaston to Virginia Beach to transport water to the growing city. Eleven miles of the 84-mile water pipeline is to run through the County. In order to obtain County approval to run the pipeline through the County, Virginia Beach has given the County rights to buy one million gallons of water each day. In addition, Isle of Wight County will house the only booster pump that will be along the 85-mile pipeline. Just over 28 acres of land on Virginia Route 608 west of Windsor was purchased for the pump site. Twelve acres of the site would be used as a buffer to a nearby Windsor subdivision and the station will be on the remaining 16.8 acres. The pipeline is expected to take two and one-half to three years to build.

Issues

As noted, Isle of Wight County relies solely on ground water for its potable water supply. The capacity analysis of the County's central water systems described above which was derived from the County's Master Plan for Water and Wastewater Service, 1987 (not adopted) indicates excess capacity in these public systems. A mosaic of small public and private water systems exists throughout the County creating some inefficiencies. The vast majority of water systems in the County are either small private or public systems sized for a limited service area. Some existing neighborhoods and communities require central water systems to correct existing failing wells or to serve expanding populations. Should it be encouraged that all new central water systems be dedicated to the County for ownership, operation, and maintenance? Should shared facilities only be permitted where supervised by or operated by the County?

The Lake Gaston pipeline project could offer an alternative to groundwater resources; however, it is considered to be an expensive source at this time. The location of the service area will have significant land planning implications.

Schools and Educational Resources

The Isle of Wight County Public School System offers a comprehensive program for grades K-12, in addition to special programs for gifted students, handicapped students, remedial instruction in basic skills, advanced placement classes, alternative education, pre-school, and vocational education. There is also a full complement of extracurricular offerings which attract students with a variety of interests and

abilities. Students from the Isle of Wight County Public Schools may attend the Governor's Magnet School for the Performing Arts in Norfolk, based on auditions and review of their work.

During the 1988-89 school year, 2,793 elementary students were enrolled, and 176 elementary classroom teachers were employed. On the secondary level there were 1,486 students, and 108 secondary classroom teachers were employed.

Figure 6-1 indicates the current enrollment of the County's schools. A distribution of the existing educational facilities is shown on Map 6-3. Though the actual capacity of each school is still being developed, there are indicators such as portable classrooms that some schools are overcrowded today. In response to this, the School Board's Five Year School Improvement Plan includes the design and construction of a new elementary school and planning for an additional school.

Figure 6-1
ELEMENTARY and SECONDARY ENROLLMENT
THROUGH MARCH 31, 1989

School	Pupils
Carrsville Elementary	244
Hardy Elementary	923
Smithfield Elementary	809
Windsor Elementary	817
Smithfield High	985
Windsor High	501
TOTAL	4,279

Issues

To project future public school space needs, a number of assumptions must be made, including assumptions about federal and State tax policies for private schools, dropout and enrollment rates, standards related to classroom and total school size, and local School Board initiatives. The following assumptions were made in projecting school facility needs: (1) there will be no drastic changes in Federal and State tax policies concerning private schools; (2) the future enrollment and dropout

rates (per 100 people) will stay at current levels; (3) no major changes will be made in classroom and school size standards; and (4) private schools, both parochial and secular, will continue to be an educational alternative.

Figure 6-2 shows the projected pupil enrollment based on the population projections contained in Chapter One of the Plan. From these projections, school capital needs can be generally gauged. Figure 6-3 expresses facility demands based on classroom needs. These projections use the current teacher/pupil ratio as an indicator of classroom need to offset the many and varied unique programs in use throughout the County's educational system. Using average school sizes (elementary, 500 students and secondary 750 students), the year 2010 public school needs would be for approximately three additional elementary schools and one additional high school.

Since it has been found that some parts of the County are growing more rapidly than others, overcrowding at selected schools is likely to result. The planned schools need to be located in those areas where the most growth is expected.

Figure 6-2
PROJECTED PUPIL ENROLLMENT
1990 - 2010

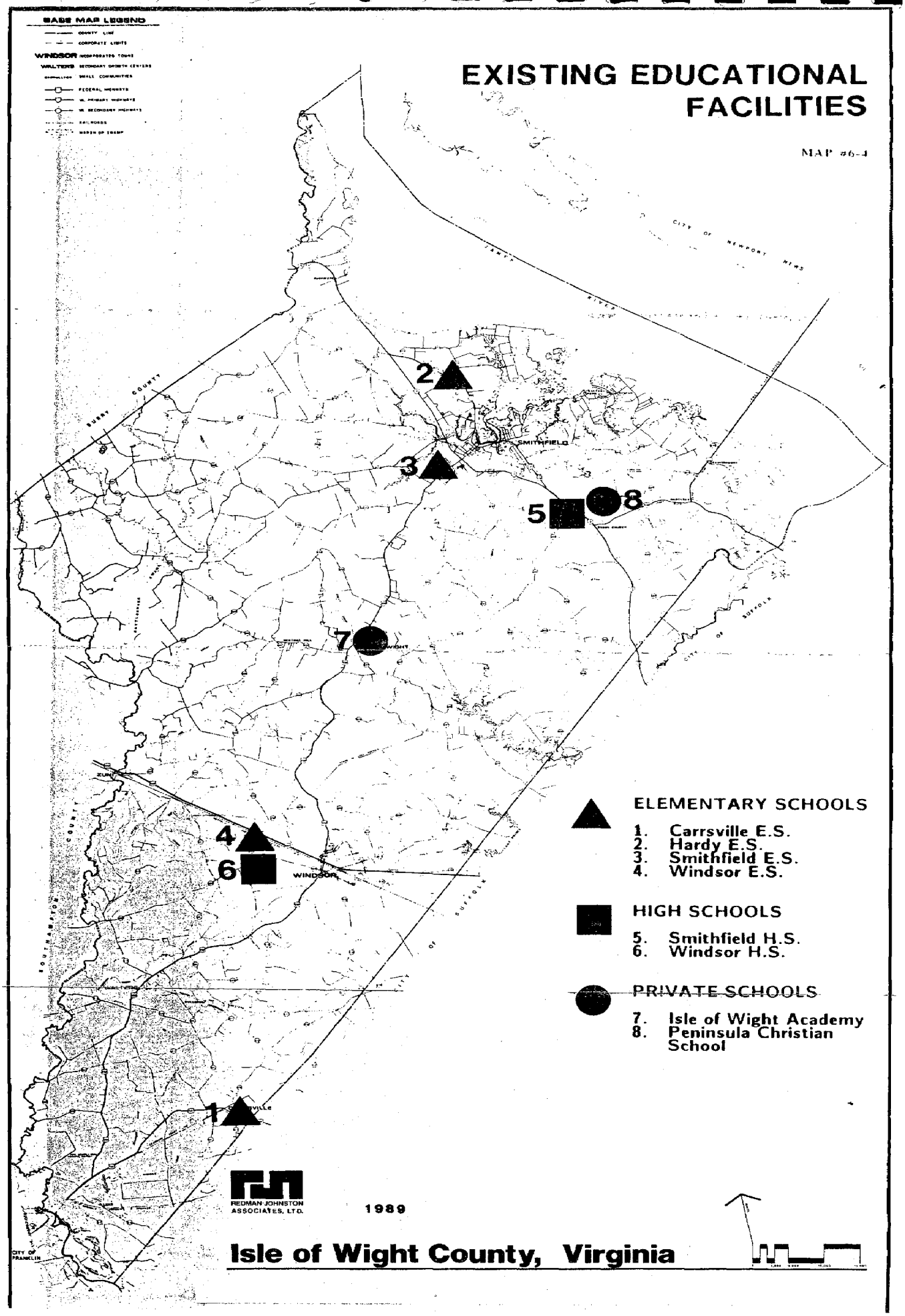
	Elementary	Secondary	TOTAL
1988	2,793	1,486	4,279
1995	3,315	1,746	5,061
2000	3,676	1,937	5,614
2005	4,032	2,124	6,156
2010	4,380	2,308	6,688

NOTES:
Projections based on Population Projections contained in Chapter One of this Plan. Though past trends have shown a decline in pupils per capita population, these projections assume this trend will level off; therefore, a constant ratio of pupils to population based on 1988 enrollment was used.

Figure 6-3
PROJECTED CLASSROOM NEEDS
1990 - 2010

	Elementary	Secondary	TOTAL
1995	33	19	51
2000	55	32	87
2005	77	46	123
2010	99	59	158

NOTES:
Classroom needs are based on the projected change in enrollment divided by the number of pupils per teacher in 1988 (16 for elementary and 14 for secondary). These projections assume that the current level of service will be maintained throughout the planning period.


EXISTING EDUCATIONAL FACILITIES
MAP #6-4
BASE MAP LEGEND
COUNTY LINE
CORPORATE LIMITS
WINDSOR INCORPORATED TOWNS
WALTERS SECONDARY GROWTH CENTERS
SMALL COMMUNITIES
FEDERAL HIGHWAYS
VA. PRIMARY HIGHWAYS
VA. SECONDARY HIGHWAYS
RAILROADS
MARSH OF SWAMP
CITY OF NEWPORT NEWS
JAMES RIVER
SURRY COUNTY
SMITHFIELD
CITY OF SUFFOLK
WINDSOR
SOUTHAMPTON COUNTY
CITY OF FRANKLIN
1
2
3
4
5
6
7
8
ELEMENTARY SCHOOLS
1. Carrsville E.S.
2. Hardy E.S.
3. Smithfield E.S.
4. Windsor E.S.
HIGH SCHOOLS
5. Smithfield H.S.
6. Windsor H.S.
PRIVATE SCHOOLS
7. Isle of Wight Academy
8. Peninsula Christian School
REDMAN/JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Public Safety

Background Information

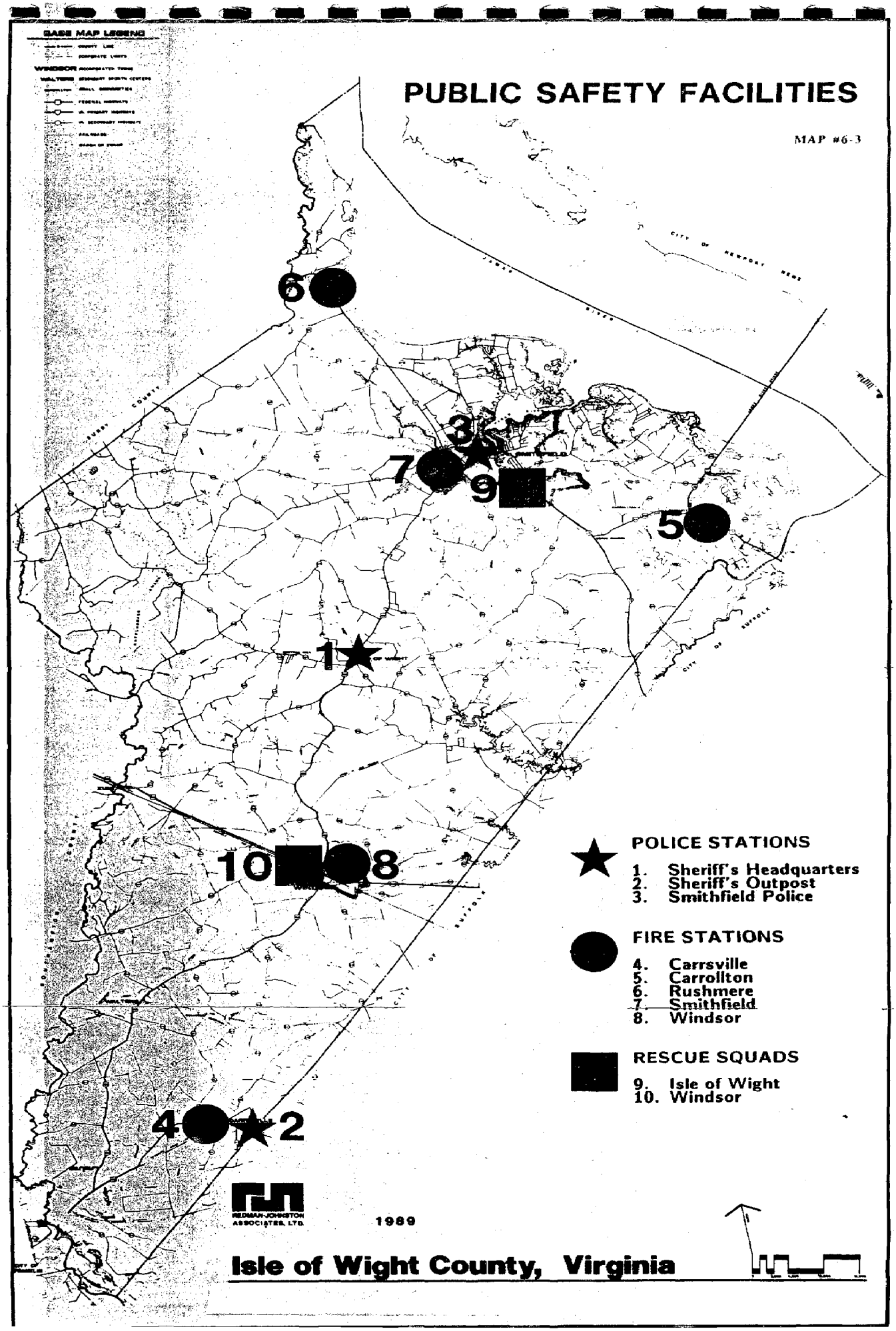
Fire Protection -- The County is now served by four volunteer fire companies. By and large, modest expansion of most of these companies will keep pace with projected new development. The American Insurance Association recommended a desirable level of service as a three to four mile radius in the urban and semi-urban areas and up to a 10-mile radius in rural areas which approximates a 7.5 minute response time. Using this standard, the Rushmere area in the northern part of the County where recent growth requires a three mile radius as a standard is clearly not within the 7.5 minute travel time from a fire station. (See Map 4) The response to this recognized deficiency has been the recent approval by the Board of Supervisors of the design of a fire department in this area.

Law Enforcement -- Isle of Wight County is served by two major law enforcement agencies: the Virginia State Police and the County Sheriff's Department. These two agencies work together to provide comprehensive police protection to County residents. The primary function of the Virginia State Police is highway safety enforcement and not that of criminal law enforcement. In addition to these two major agencies, the Town of Smithfield is served by a department of eight police officers. Windsor is served by the State and County agencies and has no municipal police department.

There are currently 21 sworn officers working for the Sheriff's Department which makes it the major law enforcement agency in the County. Thirteen officers at the State Police barracks in Franklin are assigned either primarily or in a shared capacity to Isle of Wight County. These State Police officers serve portions of Southampton County in addition to their assignment in Isle of Wight.

Issues

Fire Prevention -- Water supply can be a serious problem for areas outside public water service areas. In those rural areas, a water supply plan could be developed to insure that pumper availability and surface water supplies are coordinated. This would eliminate some of the problems associated with fire protection in rural areas.


PUBLIC SAFETY FACILITIES
MAP #6-3
BASE MAP LEGEND
POLICE STATIONS
1. Sheriff's Headquarters
2. Sheriff's Outpost
3. Smithfield Police
FIRE STATIONS
4. Carrsville
5. Carrollton
6. Rushmere
7. Smithfield
8. Windsor
RESCUE SQUADS
9. Isle of Wight
10. Windsor
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Law Enforcement -- Deficiencies in facility space for police functions have been recognized and additional facilities are currently being planned. International City Managers Association standards call for 1.75 police personnel per thousand population, including Smithfield. Considering those actively involved in law enforcement, the current level of service is approximately 1.0 police personnel per thousand. This ratio takes into consideration that a substantial portion of the Sheriff's Department's effort is directed toward serving the Courts and other administrative duties. Any reduced manpower needs that may be attributable to the County's low crime rate and rural nature are offset by the greater travel time and distances associated with rural service delivery. The current service level indicates a necessity to closely monitor manpower needs and to increase personnel commensurate with the planned population growth. By the year 2010 police personnel will need to increase by 45 to 50 sworn officers. Along with this increase in personnel will be the need to expand administrative offices and detention facilities. Current planning for a regional jail facility in the City of Suffolk is underway.

As the population increases along with their activity, the need to protect the public safety of the County citizens also increases. Adequate police and fire protection, ambulance service and emergency management need to be provided within close proximity to the County residents. Areas of dense population and rapid growth need to expand their capability.

The farther new development is from existing facilities, the more it will cost the County to provide those services. If the County is to experience various concentrations of development at multiple diverse points of the County, the existing facilities would be inadequate to cover all areas. New facilities could be added to serve individual areas, but not without substantial costs. If on the other hand, development is located near existing facilities, it may cost the County added expense, but the cost can be absorbed in phased increments to match the growth rate of development. For example, it is much less expensive to put an addition onto an existing firehouse than to acquire land and construct a new firehouse.

Distance of existing facilities to growth areas is important to response time in emergency situations. Therefore, police and fire protection should be located to serve proposed concentrated residential development as well as commercial and

industrial areas. Even non-emergency services can be made more efficient if located closer to the population concentrations. For example, Sheriff's Deputies currently need to drive to Isle of Wight to process an arrest when many of the apprehensions are made in the northern and southern parts of the County. The Carrsville fire station has been turned into a satellite headquarters for the County Sheriff's Department. This offers some relief for deputies responding to emergency calls who have to travel about 25 miles from the Courthouse on U.S. 258 to the Carrsville area or Camptown area. Similar consideration should be given to a substation in the northern part of the County where the greatest population growth is expected.

Health Care

Background Information

Health services are provided to Isle of Wight residents by the County Health Department. General medical services are available at the Louise Obici Memorial Hospital in Suffolk, the Southampton Memorial Hospital near Franklin, and the Riverside Regional Medical Center in Newport News.

The Isle of Wight Health Department has a staff of 14 full-time and three part-time (clerical) employees. The Health Department also establishes private contracts with specialists in such medical fields as physical, occupational, and speech therapy, and in the area of geriatrics to provide service to residents of the County.

The County is currently served by Riverside Convalescent Center, a 95 bed facility for those requiring more intensive care, located in Smithfield. On the same property is a separate facility, a Home for Adults, with a 34 bed capacity for those requiring fewer services. Nursing home care is also provided through an extension of the Southampton Memorial Hospital in Franklin.

Issues

Within the planning period, nursing home facilities in Isle of Wight will be one area of health care to become the focus of growing interest among providers, consumers, and policy makers. The State's elderly population will continue to increase at a rate faster than any other age group.

Public Libraries

Background Information

The Benjamin Chapman Library is owned and operated by the Smithfield Library Association but is supported by the County and the Town. This library facility recently moved to the old Smithfield High School building where it will house 13,000 volumes, seat 35 users and provide community meeting rooms. The Walter Cecil Rawls Regional Library serves a four county and two city region with bookmobiles. Each county and city (including Isle of Wight) annually contribute funds for the operation of the library and its bookmobile service. By pooling their library resources, the County, the Town of Smithfield, and the Walter Cecil Rawls Regional Library System are able to provide citizens with professional staff and services that would be cost prohibitive if each were to attempt to pay for them separately.

Issues

Based on the American Library Association standards for service and using the current population projections, the recommended levels of service in the following categories have been estimated: total volumes required; square feet required; ground floor area; and total seats required. The population projections contained in Chapter One indicate that 17,000 additional people expected in the County by 2010 will require 42,000 more books, 8,500 square feet of library space and 51 additional seats. The Benjamin Chapman Library only has capacity for 17,000 more volumes, thus additional library space will be needed.

Considering the location of the Development Service District east of Windsor and the anticipated growth, a branch library will be needed within the planning period. A library with a capacity for holding 10,000 volumes (approximately 3500 sq. ft.) should serve the central and southern section of the County.

Solid Waste Disposal

Background Information

The Southeastern Public Service Authority of Virginia (SPSA) handles all municipal solid waste generated in Southeastern Virginia. The system includes the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach, and the counties of Isle of Wight and Southampton.

The regional landfill, located in the City of Suffolk, became operational in January 1985. It was expected to be closed by 1992 but, due to an agreement by the Suffolk City Council in allowing SPSA to increase the height of the existing mound of trash from 92 to 165 feet and to expand the width another 50 acres, it will not need to close until 1997.

The Southeastern Public Service Authority (SPSA) has evaluated the feasibility of expanding the existing regional landfill; but, the Corps of Engineers determined that an excessive amount of wetlands would have to be destroyed to accomplish the expansion. SPSA subsequently screened its service area for possible landfill sites which would be suitable. Following detailed suitability studies of various sites, three final sites have been selected in Isle of Wight County.

In Isle of Wight County, the site location currently considered to be the "best" by SPSA is 896 acres of woods off of Highway 258 approximately two miles north of Windsor. The Windsor site was considered to be the least damaging to wetlands and would affect the fewest residents. Neither did it have any historic landmarks nearby as did the other possible sites.

If the County allowed a regional landfill within its boundaries, SPSA has stated that the County will not have to pay disposal costs (a saving of $400,000); private haulers could use the landfill at a reduced cost - from $25 a ton down to $10 a ton; the landfill would be an environmentally sound disposal system; an environmental protection trust fund would be established; an operating guarantee insurance policy would be held; and the County would become eventual owners of the property after the landfill reaches capacity in 2015.

Issues

The County will be generating 66,000 cu. yds. more solid waste per year than it is currently generating due to the future growth. Beyond 1997 it is uncertain what will be done with the waste. With limitations on the current landfill and the lead time required to design and construct a new landfill, it is imperative that this regional problem be addressed in an acceptable manner.

Recycling materials that would otherwise become solid waste can be collected, separated, or processed and returned to the marketplace in the form of raw materials or products. The recycling of reusable waste materials can substantially reduce the required capacity of future landfills by 10 to 15 percent. Building and construction waste typically comprising ten percent of the waste load can be recycled or disposed of by alternative means.

The distribution of "green boxes" throughout the County has provided convenient disposal for residents; however, it has created numerous management problems for the County government. The areas around the dumpsters which are not manned can become sites of indiscriminate dumping. Alternative collection techniques would minimize the need for such an extensive use of "green boxes".

Administrative Facilities

Background Information

Administrative facilities deal with functions of general government administration, legislative processes (Board of Supervisors) and judicial processes (District, Circuit Court, Juvenile and Domestic Relations). The basic activities of general government administration are billing and collecting taxes and fees for county services, permits, and licenses and the day-to-day general operations of county government.

All administrative functions are primarily located in the Courthouse complex on U.S. 258. The complex is near the geographic center of the County. The five buildings in the Courthouse complex that house general administrative activities are the County Administration Building, District Court Building, County Courthouse, Clerk of the Circuit Court Building, and a temporary unit. The District Court Building is an addition to the County Administration Building.

Issues

Based on nationally derived indicators, the County will need 33 additional employees and 18,000 square feet of additional office space to provide services to future residents.

Goals and Objectives

Goal:

To provide an equitable system of community facilities, public services, and utilities that is consistent with citizens' needs and that encourages a form of development consistent with the Comprehensive Plan.

Objectives that will enable the goal to be achieved:

- Meet community facilities and services needs of existing development as a first priority.

- Encourage adaptive and shared use/reuse of community facilities by two or more government agencies and by public and private sectors.

- Coordinate expansion of facilities with the County Growth Management Plan such that facilities and residential development coincide.

- Review the performance and effectiveness of existing facilities and proceed with changes or expansion as necessary.

- Develop needed facilities in a cost-effective manner, such as giving priority to expanding facilities rather than creating new facilities whenever possible.

- Ensure that the costs of additional public facilities and services required by new development is equitably borne by those benefitting.

Implementation Recommendations

There are an array of alternatives available for achieving the objectives relating to the provision of facilities to manage and accommodate growth. This section provides a brief discussion of the general techniques recommended. A more detailed description of each implementation strategy is included in Chapter Twelve, Implementation. More specific recommendations are included as needed for individual public services.

Development Service Districts

Development Service Districts established in the growth management plan are based on the premise that new development can be serviced most efficiently if it is limited to certain areas within the County. The key to the success of a Development District is in the availability of services and capital improvements; therefore, the County must provide adequate sewerage capacity, water, roads and schools in order for the districts to accommodate the anticipated growth. It is essential, for example, that these areas have access to adequate sewer if they are to develop at the intensities necessary to manage and define growth within the County.

Capital Programming

A capital programming plan should be developed in conjunction with a growth management plan. For example, a well designed capital improvements plan will provide for the orderly extension of sewer and water at a rate needed to accommodate anticipated growth. The capital improvements plan will provide the vehicle for the County to set priorities and to make the most efficient use of available funds. Capital programming is the tool which should be used to guide growth toward predetermined areas of the County and at predetermined rates. The County should use the capital improvements program to guide developers in proffering conditions for the provision of public facilities.

Voluntary Proffers

Voluntary proffers provide a direct means of obtaining the needed capital improvements to service new developments. Proffers should continue to be used to help defray the costs of expanding public services and facilities. Off site improvements of public facilities and dedication of land but not cash contributions can be used to offset the impacts of a proposed development associated with a rezoning. (Section 15.1-491.2 Code of Virginia.)

Fiscal Impact Analysis

The development of a per unit fiscal impact of residential and commercial development would provide a rational basis on which to accept proffers from developers. It is intended that the fiscal impacts be calculated for water and sewage facilities, parks, roads and schools, as well as, for more public welfare needs such as police, fire, and emergency medical facilities. It is intended that the impacts be

calculated based on accepted methodologies and following the standards described below.

Generally, the court decisions upholding impact fees or development exactions require that they meet a three-part standard. First, new development must demand new capital facilities. Secondly, a rational nexus or close relationship must exist between this new development and the need for these new facilities. Finally, there must be some assurance that sufficient benefit accrues to the particular development that pays the fees. These tests are similar to the standards set forth by the Virginia General Assembly (Section 15.1-491.2 Code of Virginia) for voluntary proffering. Virginia courts have upheld the use of the proffer system when the above referenced standards are adhered to.

Though impact fees are not expressly authorized for Isle of Wight County, the detailed impact analysis will establish the basis for such fees once the County is enabled by the State legislature. Isle of Wight County may now use, to some degree, impact fees for water, sewerage and drainage control. (Section 15.1-491.2 Code of Virginia.)

Adequate Public Facilities Standards

Adequate facilities standards will help control the development process by showing that sufficient infrastructure and services are present or will be provided. These standards can ensure that land development coincides with the location and timing of capital facilities. Standards for water, waste treatment, transportation, and educational facilities guide the development review process. County established acceptable levels of service will serve as a basis for determining the impacts of development and for programming capital facilities.

Adequacy of the development should be considered for fire suppression, roads, schools, sewerage, storm drainage, and water. Minimum standards to determine adequacy need to be established for Isle of Wight County. For example, one of the criteria for determining the adequacy of sewer is that the interceptor is adequate to handle the peak flows calculated by the methodology set forth in the County's Master Plan for Water and Wastewater. The County should consider dividing itself into policy areas which have different levels of service required. For example, rural

areas may require a Level of Service B for roads, but in urban areas (full service areas) Level of Service D may be tolerated.

Though it is recognized that Isle of Wight County is not currently enabled to deny approval of subdivisions based on the lack of adequate public facilities, the State law (Section 15.1-466 E) does provide for the means of achieving adequate facilities objectives voluntarily. The County should pursue this technique in light of efforts by a growing number of Northern Virginia counties to gain the authority to more positively tie development approvals to the availability of public facilities.

Special Taxing Districts

Special taxing districts should be used by the County to provide certain additional public services for an area benefitting exclusively benefiting from such services. Isle of Wight County has the authority under the Virginia Water and Sewer Act to create Public Service Authorities for the purpose of providing any or all of the utilities and services described in the Act.

Chapter 7

Housing and Community Development

Chapter Seven: HOUSING AND COMMUNITY DEVELOPMENT

Introduction

The two dominant forces affecting the structure and characteristics of the County's housing market in recent years have been the high proportion of mobile home development and the increase in growth primarily in the northern part of the County. These factors, with the housing characteristics and demographic trends, will be examined to provide the background for evaluating the alternative implementation strategies necessary to achieve County housing objectives.

Background Information

This section identifies the characteristics and trends of the Isle of Wight housing market. The Census Bureau indicates a change of 2237 housing units from 1970 to 1980 or a 41.3 percent increase. This is a trend that has continued and accelerated into the 1980s with an increase of 2905 housing units through the period 1980 to 1988. The current estimate of housing units in the County is approximately 10,500 units.

The characteristics of the housing units accommodating the County's households and unoccupied units are shown in Figure 7-1. It is particularly relevant that owner occupancy has increased substantially in the County. Rental units dropped from one third to about one-fifth of the housing stock in 1980 while owner occupied increased from more than 60 percent to over 70 percent of the housing stock. These trends generally imply a more stable local housing situation and one increasingly typical of a growing County. The increase in ownership is believed due in large measure to basic changes in the income, and socio-economic level of the households migrating into the County.

Analysis of the physical nature of Isle of Wight's housing units (see Figure 7-1) reveals the following characteristics. First, it is obvious that the dominant unit is the single-family detached home. This type of housing comprises over four-fifths of all residential units. Second, the number of units in "apartment" structures (five or more units in the structure) increased by over 500 percent between 1970 and 1980. Third, the mobile home is a significant and increasing factor in the County's overall housing picture. The proportion of mobile homes in the total housing stock

Figure 7-1

ISLE OF WIGHT COUNTY
HOUSING STATUS AND UNITS PER STRUCTURE

	1970	%	1980	%	1970-1980 %CHANGE
Year-round Units	5416	100.0	7646	99.2	41.2
Vacant Seasonal	--	--	59	0.8	--
TOTAL HOUSING UNITS	5416	100.0	7705	100.0	42.3
Owner Occupied	3296	60.8	5457	71.2	65.6
Renter Occupied	1729	32.0	1589	20.7	(0.8)
TOTAL VACANT	391	7.2	614	8.1	57.0
For Sale	--	--	132	1.7	--
For Rent	--	--	84	1.1	--
Held For Use	--	--	50	0.7	--
Other	--	--	334	4.4	--
Year-round	--	--	14	0.2	--
TOTAL YEAR-ROUND	5416	100.0	7660	100.0	41.4
Units in Structure *					
1 Unit (detached or attached)	4594	84.8	6234	81.5	35.7
2 Units	317	5.9	183	2.4	(42.3)
3 and 4 Units	35	0.6	33	0.4	(5.7)
5 or More Units	31	0.6	191	2.5	516.1
Mobile Home, etc.	439	8.1	1012	13.2	130.5
TOTAL UNITS	5416	100.0	7653	100.0	41.3

SOURCE: 1970 and 1980 Census
* Figures for 1970 and 1980 are year-round units

increased from 8.1 percent to 13.2 percent between 1970 and 1980. This trend has continued through this decade with one fifth of the current housing stock in mobile homes. Figure 7-2 shows that 43 percent of new home construction since 1980 has been in mobile homes.

Between 1980 and 1988, the County's stock of year-round housing increased by over 2905 units, of which 98 were multi-family. This reflects a 25 percent increase in multi-family units that existed in 1980. Between 1989 and 2010, the County is expected to add about 300 housing units a year. The Comprehensive Plan and associated County policies will, ultimately, influence where future housing is located in the County as well as the mix of types of housing.

Figure 7-2
RECENT DEVELOPMENT TRENDS
RESIDENTIAL BUILDING PERMITS
1980 thru 1988

Year	Single Family	Multi-Family	Mobile Homes	TOTAL
1980	80	20	101	201
1981	67	-	89	156
1982	67	-	119	186
1983	188	4	148	340
1984	183	-	152	335
1985	192	-	163	355
1986	237	9	135	381
1987	278	5	185	468
1988	260	60	163	483
TOTAL	**1,552**	**98**	**1,255**	**2,905**
Percent of Total	**54%**	**3%**	**43%**	100%

SOURCE: Department of Community Development, Isle of Wight County

Isle of Wight residents have, in general, noticed that the cost of housing and the cost of living have soared. These observations are substantiated when the median family income is compared with the cost of owner occupied housing in the County since 1970 in Figure 7-3. The median value of an owner occupied house in Isle of Wight has increased at a greater rate than median family incomes. The median cost of owner occupied housing increased 500 percent since 1970 while the median family income during that time only rose 240 percent, showing a relative loss in purchasing power of the housing consumer.

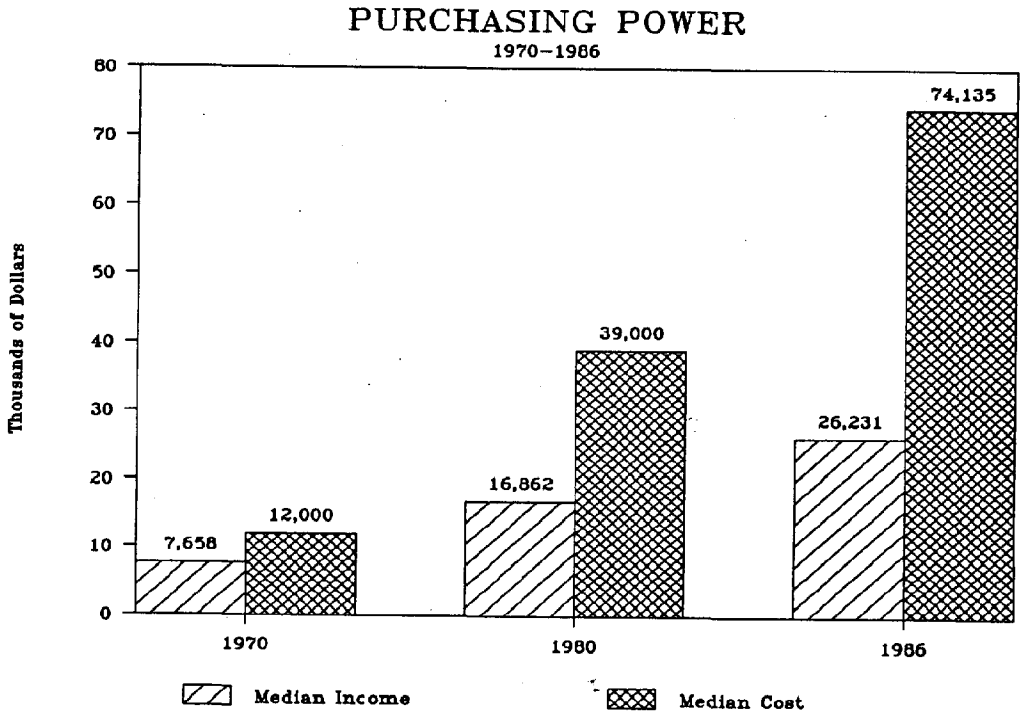
Issues

Affordable Housing

One consequence of becoming a "bedroom community" is that newcomers not only add to the demand for public services, they also place more stress on the cost and availability of housing. Residents coming into the County are able to afford older

structures that, in the past, might have been available for low to moderate income residents. They also build new housing that is markedly higher in value than some of the existing rural dwellings, heightening the degree of disparity between the cost of housing and the existing resident's ability to pay. Many of the new residents either continue to commute to jobs in the Hampton Roads area or they come to retire in Isle of Wight. Consequently, there is not a corresponding increase in new jobs that in many growing communities alleviates some of the housing problems by increasing the existing residents' financial ability to acquire new housing. The result is an increased gap between the housing that the market provides and what the lower income residents of the County can afford. Problems have also been created by the gap between the quality of housing owned by new residents and the low income sector of the community.

Figure 7-3



Another serious issue facing Isle of Wight is the availability of affordable housing for the lower income residents. A gap exists between what is or can be built, and what many of the elderly, lower income residents and newly formed families are able to afford. The predominant form of housing available in the County is the single family detached dwelling unit. Typically, the cost of this particular dwelling type is simply too high for most people falling into these groups. Lower income families are excluded from the housing market when development is restricted to single family residences since they generally cannot afford this type of housing. Most of the high density housing that has been built in the County has failed to meet the needs of those with modest incomes countywide, especially the eight percent "hardcore" underhoused living without bathrooms and/or heating with wood exclusively.

Affordable housing is also a problem for many elderly persons who must rely on limited, fixed incomes. This fact is underscored since 48 percent of the unrelated individuals below the poverty level are 65 years or older. In Isle of Wight the proportion of elderly in the population increased from 9 percent to 11 percent during the past decade. The SVPDC has estimated the current need for very low income households age 62 and older and requiring housing assistance to be 430 households and estimated that only 246 units are available. Those elderly who are able to afford larger homes may reach a point where they no longer wish to or are no longer able to maintain them, and, therefore, would be interested in smaller homes on smaller lots or attached dwelling units of one type or another.

Newly formed families are another group who often lack the necessary capital for financing even modestly priced single family homes. Instead, they look to multi-family units or mobile homes as a more practical place to live.

The need to provide for more affordable housing is a concern raised by elected officials, planners and citizen groups throughout the County. It has been noted that housing costs in the County increased dramatically between 1970 and 1986. During this period, owner-occupied housing accounted for an increasingly larger share of total housing. Concurrently, there was a proportional decline in the rental housing's share of new housing construction.

RENTAL HOUSING SUBSIDY PROGRAMS

Affordable rental housing in Isle of Wight is subsidized through the following:

Department of Housing and Urban Development (HUD)

1. Section 221 (d)(3) provides mortgage insurance to help finance the construction or substantial rehabilitation of large multi-family (5 or more units) rental or cooperative housing projects for low and moderate income families.

2. Section 8 Existing Certificates and Moderate Rehabilitation Housing provide assistance on behalf of households occupying physically adequate, moderate-cost rental housing of their own choosing in the private market. Federal payment per unit equals the difference between the government-established Fair Market Rents and thirty (30) percent of the tenant's income. This Program is administered through the Department of Social Services.

3. Section 8 New Construction and Substantial Rehabilitation subsidizes rents of lower-income households occupying public and privately developed projects. Federal payment per unit equals the difference between the government-established Fair Market Rents and thirty (30) percent of the tenant's income. In Isle of Wight, this Program is administered through the Department of Social Services.

Farmers Home Administration (FmHA)

Section 515 of the Housing Act of 1949 authorizes FmHA to make or insure loans to finance the purchase, construction, or rehabilitation of rental and cooperative housing in rural areas for occupancy by the elderly, the handicapped, or low and moderate income families. The purchase of a site and the provision of essential housing-related facilities may be included in a loan where appropriate. The 1983 amendments to the Act require that, to the extent that rental assistance programs are available, all units must be occupied by very low income persons (income below 50% of the median).

The Department of Social Services which administers HUD's Section 8 Program, reports that 144 applicants are currently on a waiting list for the availability of affordable rental housing through the Section 8 Program. With 76 units in the

County approved for Section 8 entitlement, there are almost twice the number of applicants waiting for acceptance as there are units approved.

Housing Condition

The condition of the housing stock in Isle of Wight, as of 1980, is characterized as follows:

1. Age of the Housing Stock--According to the Census, only 1689 of the year round housing units were built in 1939 or earlier. This is just 22 percent of the inventory and illustrates the fact that the County has experienced a substantial proportion of its growth since the beginning of World War II. Over 60 percent of the total housing stock was built after 1960.

2. Bathroom Facilities--The absence of bathroom facilities is an indicator of housing problems. In 1980, 638 (8.3 percent) of the total year round units lacked complete plumbing for exclusive use. As a point of comparison, Southampton County to the south had 22 percent of its housing units without adequate plumbing and Portsmouth had 6 percent. A greater proportion (18.9 percent) of rental units are without adequate plumbing and sanitation facilities. Almost three fourths of the rental units (274 units) occupied by persons below the poverty level lacked adequate bathroom facilities in 1980. These are units which should be targeted for rehabilitation and may be candidates under the Residential Shoreline Sanitation Program for financing. This Program was established as part of the Chesapeake Bay initiative for the purpose of providing low income residents with funding to repair/replace septic systems which are in violation of sanitation regulations.

3. Heating Equipment--9.3 percent of the housing in 1980 lacked central heating and were heated exclusively with fireplace, woodstove, or portable heaters (electric or kerosene).

Scattered site mobile homes in the County represent a unique housing condition. It has been difficult for the County to control the quality and location of mobile homes on individual lots.

For the most part, the overall housing stock appears to be in reasonably good condition. It does exhibit characteristics of a rural area. Given the fact that a significant proportion of the housing is associated with the exurban migration, the conventionally built housing stock has been priced beyond the affordability by people with relatively modest means. The high proportion of mobile homes being located in the County during the decade has provided a substantial pool of affordable housing in lieu of more conventional multi-family structures.

Housing Availability

Isle of Wight's housing stock is in generally good condition; however, some families are ill-housed, and there is a continuing need for new units to accommodate families of modest means. Efforts by the private-developer community in association with County and State agencies began to increase the number, quality and variety of housing units available in the County during recent years. The subsidized rental projects which are representative of recent development in the County are shown in Figure 7-4.

One housing production requirement must be kept in mind. The effective operation of the housing transfer process involves a continuous creation and rapid turnover of vacancies. There must be an ever-available reservoir of standard housing vacancies to broaden the choices available to those seeking new quarters. This reservoir includes new units produced speculatively for sale or rent and used units put on the market as families are disbanded, move out of the area, or transfer within the area.

Although new units obviously are not produced specifically for a "vacancy reservoir", the maintenance of an adequate vacancy reserve must be taken into account in estimating new production requirements. As population grows, the size of the vacancy reserve must also grow. However, the rate of vacancies (as a percent of the total housing stock) may remain relatively stable. Appropriate target rates may vary with the area, but a common standard is 1 percent for owner-occupied and five percent for renter-occupied units. In 1980, about five percent of the rental units were vacant and ready to be rented. About 2.5 percent of the owner occupied units were available for sale. More recently, a 1989 survey of the occupancy rate of mobile home parks in the County reveals a vacancy rate of nine percent for mobile

homes in parks. These indicators show that the County's "vacancy reservoir" is not a major area of concern in the overall housing picture.

Figure 7-4
AFFORDABLE RENTAL HOUSING
COUNTY OF ISLE OF WIGHT

PROJECT NAME - LOCATION	SUBSIDY PROGRAM	NUMBER OF UNITS
Church Manor Apts. - Smithfield	Section 221 (d) (3)	50
Existing Housing*	Section 8	76
Jersey Park Apts. - Smithfield	Section 8	80
Moderate Rehabilitation	Section 8	2
Windsor Apartments - Route 258	Section 515 (FmHA)	40
Woods Edge - Rte. 258, Smithfield	Section 515 (FmHA)	60

*Operated by the Isle of Wight Social Services Department

SOURCE: Directory of Subsidized Apartment Complexes in Southeastern Virginia, Sixth Edition, May 1986

The movement of a large generation of people now in their twenties out of their parents' homes and into the housing market, the growth of female employment, the associated trend toward postponing marriage and maintaining independent households all contribute to the national trend toward increased number of single heads of households. In Isle of Wight the single households increased to 16.4 percent in 1980. This is a clear trend which has created a demand for smaller affordable dwelling units.

A Hampton Roads Housing Study was prepared by the Southeastern Virginia Planning District Commission January of 1988. This study evaluated some of the factors controlling the availability of housing. The pent-up demand for housing in the region was measured. An index of the pent-up demand for housing was constructed. This index is the annual population change summed over a period of six successive years divided by the sum of residential building permits over the same six year period. The resulting index figure expresses the changing relationship between the

growth in population and the building of residential space to accommodate that growth. The higher the ratio becomes, the greater the pent-up demand for housing since it indicates that relatively little construction has occurred relative to the growth in population. The index in 1985 for Isle of Wight was 2.39. For comparison, the City of Franklin at -0.2, Southampton County at -1.41 and Suffolk at 1.19 had significantly less pent-up demand. The only jurisdictions included in the Study with greater demand were Poquoson at 2.55, Portsmouth at 2.70 and York County at 2.59.

The following is a summary of the problems and issues related to housing described above:

-- A lack of affordable housing exists for a spectrum of the County's households due to a variety of forces.

-- The lack of affordable rental housing is most acute with the lowest income households, especially the elderly and single parent households.

-- There is a need for improvement of housing conditions in some areas especially for the "hardcore" underhoused usually found in dwellings lacking adequate plumbing and sanitation facilities.

-- Mobile homes are used to a large degree by low and moderate income residents; however, concern exists among County residents that the configuration and development of mobile homes sites and parks are not generally providing safe, sanitary or pleasing environments for the residents. Equal concern exists for the negative fiscal impact with such a large proportion of new housing being in the form of mobile homes which generate significantly less revenue for the County.

-- Based on current trends, a need exists for small affordable housing units for the single head of household segment of the population, both young and old.

Goals and Objectives

Because housing characteristics in recent years have been dominated by mobile home and exurban development, Isle of Wight County has the following goal for future housing and community development:

> **To provide residential areas that offer a variety of housing densities, types, sizes, costs, and locations to accommodate existing and future needs.**

Specific objectives that will help the County achieve this goal:

- Improve housing opportunities for lower income segments of the population.
- Provide assistance to upgrade existing housing that is deficient in plumbing and sanitation facilities.
- Rehabilitate or remove substandard housing.
- Reduce construction costs for residential development.
- Protect residential zones from incompatible activities and land uses.
- Require mobile home parks to be safe, sanitary, and pleasing places to live.
- Preserve historic and/or architecturally significant buildings, homes, and properties.
- Locate residential development in relation to the availability of employment, commercial services, public utilities and facilities, and transportation routes.
- Discourage residential development in areas dominated by environmentally sensitive features or agricultural operations.
- Accommodate future residential development in balance with other land uses.

Implementation

There are a variety of implementation alternatives available to local governments for the provision of affordable housing. The following implementation techniques have been selected to implement the objectives identifies above. For a more complete discussion of the implementation techniques please see the Comprehensive Plan Technical Report.

Flexibility in Housing Types -- Foster land use patterns that reduce unit land costs and encourage flexibility in housing types. This can be achieved through planned residential development and cluster development provisions in the County's zoning ordinance. This strategy will also be implemented by one of the basic concepts of the Land Use Plan which is to allow maximum flexibility in configuring lots into clusters rather than relying on minimum lot sizes to determine the desired density. This flexibility also allows for maximizing efficiency in providing infrastructure to the homesites. The creation of a Development District in close proximity to places of employment is consistent with housing objectives. The Development District will be capable of accommodating higher density development with adequate road systems and public facilities. The Land Use Plan encourages development in the Community Centers throughout the County thereby providing flexibility in location of housing, as well as housing diversity. Finally, the Land Use Plan allows for multi-family housing to be permitted in the Activity Centers and Development District and other appropriate locations without increasing overall permitted densities.

Utilize Federal and State Programs -- Continue to use Federal and State programs to help meet Isle of Wight County's housing needs. The following housing programs should be used by the County to assist residents with low to moderate incomes.

- <u>Virginia Housing Partnership Program</u> -- Isle of Wight is eligible to apply for either a block grant or grant for specific project under this program. Eligible activities include single and multi-family rehabilitation, energy loans, and funding for emergency home repairs.

- <u>Virginia Housing Production Program</u> -- Loans are provided to non-profit organizations or for-profit developers to construct single-family homes.

- **Small Cities Community Development Block Grant (CDBG)** -- Funds are passed through the State Department of Housing and Community Development for a variety of housing related projects such as housing rehabilitation programs. To date, the County has not received a CDBG grant through the State.

- **HUD Section 236 Program** -- subsidizes mortgages for rental housing projects and provides rent supplements which are subsidy payments to the owners of private rental housing on behalf of lower-income tenants.

- **HUD Section 202 Housing for Elderly and Handicapped** -- provides direct loans for the development of rental housing for the elderly and handicapped. Projects also receive Section 8 subsidies.

- **HUD Section 8 Housing Vouchers** -- provides rent subsidy payments to be based on a newly established payment standard rather than on actual unit rents. The standard is to be based on the Fair Market Rents set for the Section 8 Existing Housing Program. Families renting units above or below the new payment standard will pay more or less than 30 percent of adjusted income for rent.

Bonus Densities for Affordable Housing -- Grant bonus densities to planned development projects to encourage the provision of more affordable housing. It is recommended that in order to encourage the production of housing for low-income residents, the density of development within certain districts may be increased with the following guidelines:

- Development not recieve more than a bonus of one additional dwelling unit per acre above the permitted density.

- The units provided must meet all conditions with regard to income qualifications and other standards that may be established by the County to ensure that the units are bonified affordable housing.

- The bonus for low-income housing should not be permitted where subsidized units constitute more than 20 percent of a development, except in the case of a development of less than 10 dwelling units.

Intra-family Transfers -- Permit intra-family transfers of lots in the Agricultural Conservation Districts for immediate family members.

Home Occupations -- Encourage home occupations with performance standards to ensure protection to residential neighborhoods. This technique will allow a small businessman the ability to afford adequate housing which he could not afford if he had to locate his business on separate premises. Isle of Wight County currently provides for home occupations in some zoning districts. With stricter performance standards included in the zoning ordinance to control the scale and appearance of the operation, certain home occupations can be permitted by right. Consequently, those truly innocuous uses can be encouraged and the Board of Zoning Appeals can focus on those home occupations that can potentially disrupt a neighborhood.

Mobile Homes -- Continue to permit mobile homes as a means of providing affordable housing with the needed performance standards to insure their use creates a safe, sanitary and comfortable living environment. Mobile homes, or manufactured housing, tend to be less expensive than most other types of single family homes and, consequently, serve as a practical alternative to affordable housing. Within the Isle of Wight County Zoning Ordinance, Subdivision Ordinance and other applicable ordinances, mobile home subdivisions and mobile home parks will be required to meet all the same standards as required for other single family dwelling detached development. For example, road standards that apply to conventional housing will also apply to mobile home parks. Mobile homes will continue to be permitted in mobile home parks and subdivisions through conditional zoning in the Development District where the infrastructure can support the density. Individual mobile homes on scattered sites will be permitted in the Agricultural and Rural Conservation Districts, subject to certain performance standards such as controls on types of roof, width and configuration of the units.

Accessory Apartments -- Permit accessory apartments under certain conditions with adequate safeguards to protect the character of the existing residential

neighborhoods. This strategy will stimulate new, moderate cost rental housing for both young and elderly households while preserving large, older homes and allowing elderly homeowners to stay in their homes. Among the conditions of approval for accessory apartments is that the accessory apartment be "clearly subordinate to" the main unit. This will be achieved by requiring that the apartment be less than a specified percentage of the square footage of the original house. Another condition is that conversions should not be permitted in new housing. Finally, the house should have at least one owner occupied resident and should, from the exterior, appear to be a single family residence.

Indoor Plumbing/Adequate Sanitation -- Provide technical assistance to get indoor plumbing for all existing low and moderate income residents who want it. Actively promote the Residential Shoreline Sanitation program so that failing septic systems can be brought into compliance in the target areas.

Fixed Floor Area Ratio -- A fixed floor area ratio for single family residential structures in a planned residential development will allow smaller homes to be built on smaller lots. Housing costs can be contained in the small lot single family developments by tying the size of the dwelling unit to the size of the lot by a maximum floor area ratio per lot. This will ensure that the scale of the house is consistent with the lot thus preserving the less dense residential character sought in single family detached housing.

Commercial Apartments -- Permit commercial apartments in the moderately intense commercial use zones in the Activity Centers and Commercial Centers. This type of housing represents a lower cost option for builders since there is no land value associated with the dwelling units. In addition to providing more affordable housing, locating residential uses in commercial areas also provides for the more efficient use of existing infrastructure and government services and greater accessibility to jobs. Because they are used during the hours normally left vacant -- the night and early morning hours -- greater use is made of existing parking lots. The County should tie increased lot coverage or floor area ratios to the provision of second floor residential units as an additional incentive to increasing affordable housing stock.

Housing Code -- Adopt and enforce a housing code to remove substandard conditions of rental housing.

Volunteerism -- Coordinate local resources to rehabilitate and upgrade existing housing. One approach is to use apprentices in the building trades at the P.D. Pruden Vocational-Technical Center to rehabilitate houses.

Self Help -- Encourage the formation and operation of Self-Help groups. One such oranization is the Habitat for the Humanities. The County might consider providing money for these organizations.

Designing for Economy -- Designing for economy can be achieved without sacrificing marketability. The County should proactively educate builders on techniques proven to save money and, when possible, reduce standards that will save money without sacrificing structural strength or aesthetic quality. In most cases current County building codes permit cost saving designs; however, there are opportunities for the County to relax standards. The County needs to evaluate the building code to ensure that unecessary impediments are not preventing the use of economical designs.

Expedition of the Administrative Process -- The County can make a direct contribution to affordable housing by expediting their procedures regulating land use and housing construction. A basic step the County should take to promote affordable housing is to review the entire regulatory process from zoning through permitting as it is actually experienced by developers, to identify procedures that can be simplified, abbreviated or improved. Some of the features of a regulatory modernization arrangement are as follows:

- Provide formalized assistance to developers prior to application.
- Consider expediting reviews and approvals through a development coordination office possibly in the County Administrator's Office.
- Use administrative hearings in lieu of legislative bodies, or appointed boards or commissions.

- Prepare a variety of policy manuals to be made available to builders and developers as a unified and ready source of information.

- Use "over the counter" or "one stop permitting" when possible, particularly on small projects.

- Use private consultants to augment County planning and engineering staff during periods of intense permit activity.

- Provide for interdepartmental coordination for complex projects possibly through the County Administrator's office or the Department of Community Development where umbrella authority exists to break free any problem areas.

- Review legislative procedures to explore means of reducing processing time.

Housing Trust Fund -- The Virginia Housing Development Authority (VHDA) and Virginia Department of Housing and Community Development (VDHCD) will be administering such a State fund to be used as a revolving loan fund to induce the development of low and moderate income housing statewide. A housing trust fund can be both a generator and a conduit of funds for the development of affordable rental housing. To create a flexible Housing Trust Fund as a mechanism to help fund affordable rental housing, the County should consider the following:

- Designing a housing trust fund that will be a stable source of financing. Sources could include proffers in the form of cash contributions from developers, donations from corporations, county government contributions, and real estate transfer taxes.

- Designating uses for housing trust funds such as interest rate buy-downs for projects meeting affordable rental housing criteria, second trust financing, land cost buy-downs, water and sewer tap fee reductions, rent supplements, and seed money for non-profit developments.

- Actively pursuing state enabling legislation, as necessary, to allow the use of housing trust funds and certain revenue sources for affordable rental housing.

Summary

In the end, it is the inability of the market to easily accommodate the needs of all the residents of Isle of Wight that underlies the entire housing issue. The housing problem is also one that cannot easily be solved. The federal government and others have been grappling with this issue for decades. Despite these efforts, it is still a major problem, and certainly one that will not be solved by this Plan. The best that can be done is to work at the housing issue from a variety of directions and to seek incremental gains.

Chapter 8

Parks, Recreation, and Open Space

Chapter Eight: PARKS, RECREATION AND OPEN SPACE

Introduction

Outdoor recreation contributes to both the physical fitness and mental well-being of County residents and visitors. Recreation sites, facilities and open space are important components of Isle of Wight County's quality of life. The continued acquisition and development of outdoor recreation sites and facilities, in line with a growing population in the County, are necessary to meet future demands.

In recent years, increased leisure time, a rise in living standards and an expanding population have contributed to large increases in recreational program participation. Unless these changes in community and individual recreation needs are continually considered in planning parks facilities and programs, attendance will decline and public support will be withdrawn.

In planning for recreation and open space in Isle of Wight County, an important distinction must be kept in mind: recreation areas, such as community parks and boat landings, are used actively for recreation while open space areas are managed for natural resources protection. These two uses, while not attempting to achieve the same objectives, are not always incompatible. Combined in creative land planning and management programs, they may each serve to strengthen their respective objectives.

This element of the Isle of Wight County Comprehensive Growth Management Plan reviews and analyzes current Park & Recreation practices as it relates to the goals and objectives in this Comprehensive Plan and establishes some goals and objectives for recreation and open space preservation in Isle of Wight County. An inventory of existing recreation areas and facilities in the County has been compiled and compared to projected demands for facilities through 2010. Current recreation and open space issues and problems and suggested recommendations and implementation options are discussed.

Background Information

Isle of Wight County has 19 public/semi-public recreation/open space sites which include parks, a wildlife preserve, schools, the airport and a roller skating rink.

Some of these sites are more developed than others. In addition, some provide general activities ranging from sports to picnicking while others, such as the skating rink, are more specific.

Figure 8-1 summarizes the number and types of recreational facilities in the County. It includes a partial listing of private facilities in addition to the complete listing of public/semi-public facilities. An inventory of each public/semi-public site and most private sites with their respective facilities has also been compiled and is available for reference in the *Technical Report* accompanying *The Comprehensive Plan.*

Of the 19 facilities, six are schools which fall under the jurisdiction of the Isle of Wight County School Board. Already practiced by the County, multi-use of facilities such as the six schools serves to maximize utilization of available resources with the minimum expense. In the case of a public school, multi-use indicates that the facility is being utilized by the School Board for regular school hours, including extra-curricular activities and by the Public Recreation Facilities Authority (for sponsored recreation programs) at other times.

Of the sites managed by the Public Recreational Facilities Authority, the two major ones are the Carrollton Nike Park located on Routes 10-258 south of Smithfield, and the Southern Isle of Wight Park & Community Center located at the southern tip of the County on Route 1603. The Carrollton Nike Park provides activities, including baseball, softball, basketball, tennis, playgrounds, and picnicking. Approximately half of the site is developed leaving the remainder as open space or land for potential future facilities expansion. The Southern Isle of Wight Park & Community Center facilities include play fields, basketball, playgrounds and picnicking. Map 8-1 shows the location of these two sites and the other 17 public/semi-public sites.

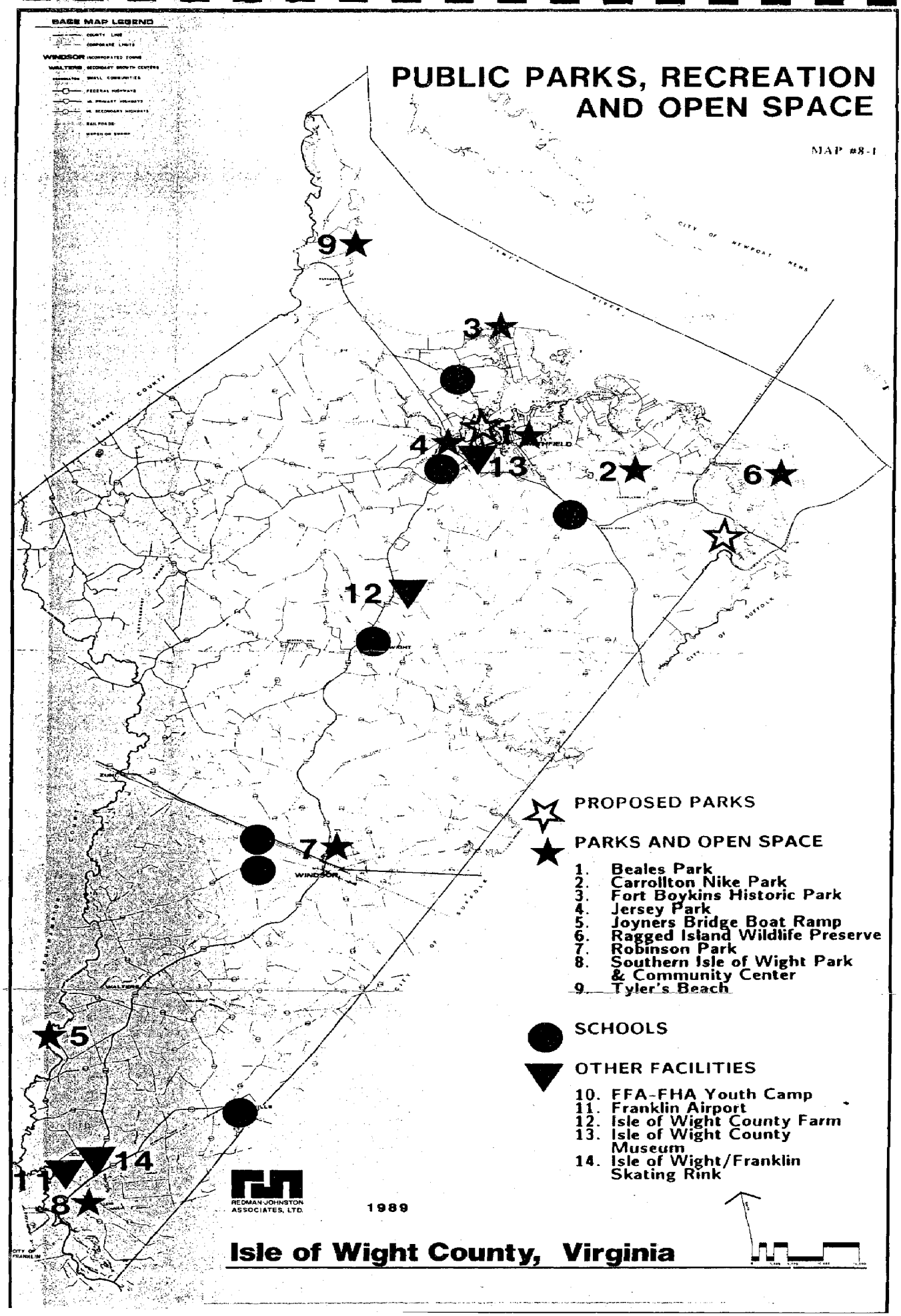
Figure 8-1

ISLE OF WIGHT COUNTY RECREATION FACILITIES SUMMARY, 1989

FACILITIES		TOTAL (PUBLIC & SEMI-PUBLIC)	TOTAL (PRIVATE)	TOTAL
AU -	Auditorium (fixed seats)	144	-	144
BA -	Basketball goals (number)	13	5	18
BB -	Baseball/Softball (fields)	5	19	24
BR -	Bicycles: Rental (bicycles)	-	9	9
CA1-	Camping, Tent (sites)	-	109	109
CA2-	Camping, Trailer (sites)	-	70	70
CR -	Canoes: Rental (canoes)	-	50	20
CT -	Canoe Trails (miles)	15	20	35
DC -	Drama/Concert (seats)	-	300	300
FB -	Football (fields)	2	1	3
FC -	Fitness Cources (miles)	4.5	-	4.5
FF -	Freshwater Fishing (acres)	-	40	40
FG -	Floral Gardens (acres)	4	-	4
FI -	Fishing Piers (linear feet)	50	-	50
FT -	Foot Trails (miles)	6.3	23	29.3
GC -	Golf Courses (holes)	-	18	18
MU -	Multi-use Fields (fields)	8	-	8
PA -	Pavillions (number)	1	3	4
PI -	Picnicking (tables)	46	50	69
PK -	Parking (spaces)	508	480	988
PL -	Playgrounds (number)	16	1	17
RE -	Public Restrooms (number)	5	1	6
RR -	Roller Rinks (number)	1	-	1
SL -	Marina Slips (slips)	-	210	210
SO -	Soccer (fields)	8		8
SS -	Spectator Sports (seats)	4,605	-	4,605
SW1-	Swimming, Pool (number)	1	7	8
SW2-	Swimming, Beach (feet)	-	300	300
TE -	Tennis (courts)	8	8	16
TR -	Running Track (yards)	440	880	1,320
VO -	Volleyball (courts)	2	2	4

Sources:

1. "Southeastern Virginia Recreation Facilities Inventory, Isle of Wight County, " Southeastern Virginia Planning District Commission (SVPDC), February 1987
2. Public Recreational Facilities Authority, Isle of Wight County, VA, June 1989
3. Isle of Wight County Board of Education, Isle of Wight County, VA, May 1989
4. "Inventory of Areas and Facilities," Virginia Division of Parks and Recreation, July 1987


PUBLIC PARKS, RECREATION AND OPEN SPACE
MAP #8-1
BASE MAP LEGEND
COUNTY LINE
CORPORATE LIMITS
WINDSOR INCORPORATED TOWNS
WALTERS SECONDARY GROWTH CENTERS
SMALL COMMUNITIES
FEDERAL HIGHWAYS
PRIMARY HIGHWAYS
SECONDARY HIGHWAYS
RAILROADS
SURRY COUNTY
JAMES RIVER
CITY OF NEWPORT NEWS
CITY OF SUFFOLK
CITY OF FRANKLIN
WINDSOR
WALTERS
PROPOSED PARKS
PARKS AND OPEN SPACE
1. Beales Park
2. Carrollton Nike Park
3. Fort Boykins Historic Park
4. Jersey Park
5. Joyners Bridge Boat Ramp
6. Ragged Island Wildlife Preserve
7. Robinson Park
8. Southern Isle of Wight Park & Community Center
9. Tyler's Beach
SCHOOLS
OTHER FACILITIES
10. FFA-FHA Youth Camp
11. Franklin Airport
12. Isle of Wight County Farm
13. Isle of Wight County Museum
14. Isle of Wight/Franklin Skating Rink
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Issues

A recreation need exists when the demand is greater than the supply. If that need can be identified before it occurs, the possibility exists to meet the need in advance of deficiency. A variety of methods with varying degrees of accuracy exist in order to determine present and future needs. Available resources such as personnel and finances preclude the degree of accuracy that could be attainable in determining need.

The Virginia Division of Parks and Recreation's established local recreation and park site standards call for at least 10 acres of recreation land for each 1,000 persons in a community, one-quarter of which should be for active recreation. This does not include large regional and State parks, golf courses and other special recreation areas, but does provide for all park needs at the neighborhood, community and district park scale.

Figure 8-2
PARK STANDARDS

PARK TYPE	SERVICE RADIUS URBAN/ SUBURBAN	SERVICE RADIUS RURAL	MINIMUM SIZE (acres)	ACRES PER 1,000
Neighborhood	0.5 mile	1-1.5 miles	5	3
Playground or Playlot	0.5 mile	-	0.25	-
Community	1 mile	3-7 miles	20	3
District	5 miles	10-15 miles	50	4
Regional	25 miles	25 miles	100	*
State	1 hour	50 miles	400	10
TOTAL				20

* *Variable*

Source: Virginia Division of Parks and Recreation

By these standards, Isle of Wight County should have approximately 583 acres of recreational area by 1990 (Figure 8-3), with 146 acres available for active recreation. There are a total of 1,976 acres of public/semi-public lands in the County. The State-owned Ragged Island Wildlife Preserve consists of 1,475 acres of open space with minimum recreation activities available (canoeing and two miles of foot trails).

School facilities consist of 152 acres and the Franklin Airport takes up 80 acres. This makes the County deficient by a total of 388 acres for open space. When planning for recreational facilities to make up existing deficiencies and provide for additional future demands, the County must not look just at the total acreage needed but also ensure that a variety of park types are offered which are distributed equitably throughout the County.

Figure 8-3
PROJECTED DEMANDS FOR PARKS
ISLE OF WIGHT COUNTY, VIRGINIA

	EXISTING PARKS (acres)	ACRES PER 1,000	1990 NEEDS (acres)	2000 NEEDS (acres)	2010 NEEDS (acres)
Population:			29,160	37,311	44,947
PARK TYPE					
Neighborhood	0.4	3	87.48	111.93	134.84
Playground or Playlot	0.0	-	-	-	-
Community	245.0	3	87.48	111.93	134.84
District	0.0	4	116.64	149.24	179.79
Regional	0.0	*	-	-	-
State	0.0	10	291.60	373.11	449.47
TOTAL	245.4	20	583.20	746.22	898.94

* *Variable*

Sources: Virginia Division of Parks and Recreation
Redman/Johnston Associates, Ltd.

In 1988, SVPDC calculated current recreational facilities needs for Isle of Wight County using a Population Ratio Facility Standards methodology. This is based on Virginia standards (or National standards when State standards were unavailable) detailing the number of people per given activity unit. For example, the population ratio standard for a Jr. Olympic swimming pool is 10,000 people per pool. If the population of a given area was 20,000, two pools would be needed. Although this method is quick to calculate and easily understood, it does not take into consideration the socioeconomic, geographic, climatical and cultural differences between localities.

In order to have more locally specific needs identified, participation rates requiring surveys are needed. Once again, available resources affect the accuracy as they determine the form the survey takes. The Virginia Department of Parks and Recreation conducted such a survey in 1982 which it updated in 1987 by utilization of a data base. In the 1982 survey, participants were given a list of activities and asked to note which ones they would participate in and how often they would participate. Unfortunately that survey was only able to include County residents utilizing County-located facilities. It therefore did not take into account non-residents utilizing County-located facilities or residents utilizing facilities located elsewhere.

Redman/Johnston Associates, Ltd. has calculated future recreation needs utilizing the Participation Rate method in conjunction with RJA determined-population projections (see the accompanying *Technical Report*). A summary of these findings is in Figure 8-4.

Already aware of some of the deficiencies of the County's recreation facilities, the Public Recreational Facilities Authority has three proposed projects which it would like to implement.

The first one, Riverview Park has already been designed and has a projected completion date of fall 1989. The site consists of 27 acres and is located at the Old Smithfield High School on James and Cary Streets in Smithfield. Facilities will include 2 lighted tennis courts, 2 multi-use courts, a softball field, and a play area with designs to be utilized by tots, handicapped and senior citizens.

The second is identified on a sub-division plat to be deeded to the County for a Public Recreational Area and has yet to have any design work done. The two-acre site would be named Brewers Creek Park and would be located on Route 661 in Carrollton.

The third, Tylers Beach located on the James River in the northern neck of the County, is an existing site which presently only has a boat ramp. Proposed development could include a public beach area, a picnic area with a shelter, a play

Figure 8-4

ISLE OF WIGHT COUNTY RECREATION FACILITIES NEEDS: 1990-2010
(unadjusted for age)

ACTIVITY	EXISTING PUBLIC SUPPLY	TOTAL EXISTING SUPPLY	FACILITY UNIT	1990		2000		2010	
				MIN. NEED	PEAK NEED	MIN. NEED	PEAK NEED	MIN. NEED	PEAK NEED
AUDITORIUM/FAIRS/CONCERT	144	144	SEAT	362	543	463	695	558	837
BASEBALL/SOFTBALL	5	24	FIELD	9	13	11	16	13	20
BASKETBALL	6	12	COURT	11	17	14	21	17	26
BICYCLE TRAILS (PLEASURE)	0	23	MILE	8	11	10	15	12	18
BOAT ACCESS	4	14	RAMP	1	2	1	2	2	3
BOATING (POWER)	21,691	21,723	ACRE	139	209	178	267	215	322
CAMPING	0	179	ACRE	15	23	20	29	24	35
CANOE TRAILS	15	35	MILE	1	2	1	2	2	3
EQUESTRIAN TRAILS	0	0	MILE	2	3	3	4	4	5
FISHING	21,691	21,731	ACRE	201	302	257	386	310	465
FOOTBALL	2	3	FIELD	6	9	8	12	9	14
GOLF	0	18	HOLE	11	17	14	22	17	26
ICE SKATING	0	0	RINK	1	2	2	3	2	3
NATURE WALKS	6	29	MILE	2	3	3	4	3	5
PICNICKING	46	96	TABLE	37	56	48	72	58	86
SOCCER/LACROSSE	8	8	FIELD	5	8	7	10	8	12
SPECTATOR SPORTS	4,605	4,605	SEAT	636	953	813	1,220	980	1,470
SUNBATHING (BEACH)	0.2	0.2	ACRE	4	6	5	8	6	10
SWIMMING (BEACH)	0.0	0.2	ACRE	5	8	7	10	8	12
SWIMMING (Jr.Olym.POOL)	1	8	NUMBER	3	4	4	5	4	7
TENNIS/RACKET SPORTS	8	16	COURT	8	11	10	15	12	18

Source: Redman/Johnston Associates, Ltd.
Virginia Division of Parks and Recreation

area, a walking trail, public rest rooms and a parking area. Design work for that project is presently being done in-house by the Authority.

There is presently little public waterfront access or parks available in Isle of Wight County along the James River or its tributaries. The County needs to acquire and develop more active recreational land for public use. In addition, a study should be conducted to determine the impact of developing a small portion of the Ragged Island Wildlife Preserve, especially as it is located near a planned Development Service District (see the Land Use Plan chapter).

Goals and Objectives

Isle of Wight County is able to provide leadership in identifying, developing, and administering finances, locations, facilities, and personnel which enhance leisure time of its residents. Together with other public and private institutions, including commercial facilities, Isle of Wight County has the following goal:

> **To create a physical and social environment which is conducive to its residents' enjoyment of recreational opportunities which contribute to the growth and happiness of each individual and society as a whole.**

Specific objectives which may help the County to continue to achieve this goal in the light of current and projected population and development pressures are:

- Continue to keep an updated and accurate inventory of recreational facilities and improvements;

- Coordinate expansion of recreational facilities with the County Growth Management Plan such that facilities and residential development coincide;

- Plan community facilities with the capability of adaptive and shared use/reuse (e.g., convertible schools, school libraries and County branch libraries, and multi-use public auditoriums) by two or more government agencies and by public and private sectors. Recreation centers should be planned in new school construction;

- Provide adequate waterfront access for recreation to current and future County residents;

- Develop needed facilities in a cost effective manner such as giving priority to expanding facility units and activity types at an existing location rather than creating new facilities and/or new locations;

- Ensure that the costs of additional public recreational facilities and programs recommended due to new development are equitably borne by those benefitting;

- Coordinate natural resource protection efforts with future opportunities for County park, open space and recreational land uses.

Implementation Recommendations

- The County must periodically **evaluate the status of recreational facilities and programs** to determine if available facilities and programs are meeting the communities' recreational interests and if park designs and program creativeness provide challenge and self-renewal to the user. This can be accomplished through regular surveys of County citizens and facilities users.

- The County should **maintain an inventory** of both public and private facilities. By keeping an overall view (public and private) of facilities and programs, the County can ensure that needs are met in a timely and cost-efficient manner for all parties concerned.

- Available **parks and park types need to be distributed proportionally around the County** such that the needs are located where the users reside. This will require the County's Park Authority to maintain records of existing population centers and be aware of where new development in the County will occur.

- **Use trails** to link park lands, conservation areas, scenic landscapes and historic/cultural sites.

- In order to ensure that public recreational land is available when needed, the County should **acquire or manage lands** with significant conservation or recreation value before encroaching development and rising land values preclude this possibility. This includes such methods as the County reaching an agreement with utility or railroad companies in which the use of utility easements or railroad rights-of-way as potential outdoor recreation and open space areas (e.g. hiking and equestrian trails) is encouraged.

- **Acquire and develop more waterfront land** along the James River and some of its tributaries to ensure the availability of public access to the water.

- To ease the County's responsibility of providing recreational facilities, **encourage private enterprises to invest** in recreational facilities (e.g. swimming pools and golf courses).

- **Establish a system of user fees** which generate revenues to assist in supporting park maintenance, operational costs and facility improvement needs. A study would be required to determine the fee and which facilities and programs should charge a user fee.

- **Seek Federal and State assistance** to secure both Community and Regional Park sites and facilities at a scale necessary to meet the demands brought on by County growth.

- The County should **encourage public and private organizations** which offer recreation opportunities **to work together** to ensure that all available recreation resources are effectively and broadly used by County residents in an effective manner.

- **Promote shared use of facilities** by two or more governmental agencies and by the public and private sectors to maximize utilization of existing facilities and minimize costs of building and/or maintaining duplicate facilities.

- **Identify and draw into recreational programs individuals and groups** with abilities in devising and leading unique recreational opportunities for local citizens.

- The County should **design creative programs and facilities** which provide challenge and self-renewal to the user.

- The County should **ensure the availability of a variety of programs** for people of all ages and for special user groups such as the physically disabled.

- **Increase promotion and awareness of the natural environment** through nature interpretation and nature oriented facilities which can emphasize the importance of the environment, show how man can coexists with nature, and educate residents on how to protect and preserve nature.

- Encourage private property owners to **preserve open space** as a visual amenity through the provision of incentives and controls.

- **Require recreation and open space provisions by new developments** in codes such as the Zoning Ordinance and Subdivision Regulations.

- To support County recreation facility acquisition and improvement needs, **require dedication of public park space** by large-scale developments. The County should seek clear enabling authority to collect payments-in-lieu of dedication when land donations are not appropriate.

It is not enough for facilities to exist. They must be designed and managed such that residents will benefit from the facilities' existence. Above are listed a number of recommended techniques for ensuring the provision and use of facilities and programs. Chapter 12, entitled 'Implementation,' describes further the variety of implementation techniques that can be utilized to ensure adequate recreational facilities for Isle of Wight County residents. Some of those techniques include an Adequate Public Facilities Ordinance, Capital Improvement Programming, Subdivision Regulations, impact analysis, proffers, conditional zoning, and conservation easements and acquisitions.

Summary

By being aware of what facilities, programs and park types are available versus what is needed, Isle of Wight County is able to establish priorities in order that the goal of meeting the recreational demands of its citizens is reached quickly and cost-efficiently. As with all the elements of this Plan, demands for facilities will increase and change as the County continues to grow. Re-evaluation will be needed periodically in order to ensure that facilities and programs continue to be maintained or established in the most efficient manner.

Chapter 9

Economic Development

Chapter Nine: ECONOMIC DEVELOPMENT

Introduction

In the broadest sense, economic development refers to the changes in an economy over time that occur due to growth and expansion. Economic development usually has a connotation of growth. Economies develop due to simultaneous interactions among increasing populations, increasing numbers of employers and workers, and increasing numbers of businesses which provide goods and services for local consumption, as well as for export.

Economic diversification refers to a more directed type of economic development resulting in a more stable and resilient economy which provides quality jobs in businesses acceptable to the local community. Diverse and developed economies are characterized by many different types of businesses and industries interlinked by mutual suppliers and consumers. These economies often export goods and services to other population centers. Such an economy will be more resilient, stable and less vulnerable to the national and regional economic fluctuations caused by Federal and State policies over which local governments have little control.

Partially due to the recent economic cycle of the boom years of the late 1970's, followed by the stagnant years of the early 1980's, local governments and organizations increasingly have become interested in promoting policies and programs which stimulate local economic development. Unfortunately, local governments do not have much control over many of the factors which affect a local economy. For example, Isle of Wight County has little control over federal policies affecting interest rates, the existence of certain natural resources, the topography of the land, or the location of a state university.

Fortunately, the County does have some control over other factors such as: the local educational system; the existence of serviced industrial, commercial, and office sites; and the efficient provision of local services. Also, the County can promote most effectively the formation, survival, and expansion of local businesses by reducing the costs of doing business and by correcting market imperfections which inhibit new or small business development disproportionally. Economic development programs should emphasize these types of variables.

The promotion of exported goods and services in the economy, as well as a decrease of imports into the local economy, merit special attention in a local economic development program. Imports of products and services from other areas cause a leakage of money from the local economy. The multiplier effect of that money then employs individuals elsewhere rather than locally. Alternatively, an increase in exports, including both services and manufactured products, brings money from elsewhere into the local economy and increases local employment, both directly and indirectly.

The three basic sources of job creation are as follow: (1) retention and expansion of existing businesses; (2) recruitment of new businesses; and, (3) formation of new businesses. Research has shown that more jobs are created within a local economy through the birth of new businesses and expansion of existing businesses than attraction of relocating businesses. Local economic development programs need to address adequately each of these methods of job creation to provide a balanced and diverse approach to local economic diversification.

Isle of Wight County's economic development program is an integral component of the County's Comprehensive Growth Management Plan. The County's economic development has direct consequences for land use, transportation, housing and provision of community facilities and services. The ability to pay for the costs of growth and to manage growth effectively is related to the balance achieved between commercial/industrial and residential development. The following points indicate some of the important links between economic development and other aspects of growth management.

- **Local economic development can affect the type and quality of residential development in the County**

The growth of the County's internal employment base can affect the location, timing, type, and quality of residential development. New commercial, office and particularly industrial developments providing jobs for County residents will generate different housing demands as opposed to housing demands created if Isle of Wight continues to develop as a "bedroom community" for residents who work elsewhere in the region.

Different local industries will generate different housing demands depending upon prevailing wages.

- **Employment opportunities within Isle of Wight County will present different transportation and infrastructure requirements than those based upon increased out-migration to jobs.**

The extent to which Isle of Wight County's growth is dependent upon employment expansion beyond the County's borders, specifically on the Peninsula and in other areas of Hampton Roads, has direct consequences for the County's present transportation and infrastructure (sewers and water) requirements. Encouraging future economic development within the County will require transportation system improvements and increased availability of sewer and water service in key areas of Isle of Wight.

- **Economic development is linked directly to the issue of paying for the costs of growth.**

The ability to support a wide range of community facilities and services is dependent, in part, on the non-residential development that the County can sustain and attract. To the extent that local commercial/industrial development does not occur, more reliance must be placed upon residential property taxes to pay for needed services -- affecting both present and future home owners.

- **The character of the County's development, from its land use patterns to the incomes and lifestyles of its residents, is a function of the economic development that can be encouraged within the County's borders.**

It is recognized by most County residents that Isle of Wight, due to its proximity to Hampton Roads, is poised for future growth. The character and form of growth and development in the County will in large part be shaped by the local economy. Previous County surveys have indicated that most County residents believe future growth should pay a fair-share of its costs. The desired future mix of residential and non-residential development in Isle of Wight will have a strong impact on the character of the county and the quality of life of County residents.

Recent County Economic Development Initiatives

In 1981, "An Industrial Development Program for Isle of Wight County" was prepared by an outside consultant. Many of the general findings and recommendations

contained in this report remain valid today. In June 1984, Isle of Wight County entered the Virginia Community Certification Program. After two years of work and several accomplishments, the County was unable to complete the certification program within the time allotted. Several certification requirements still remain unfulfilled. Primary among them is the control of qualified industrial sites serviced by central water and sewer systems.

The County has an Industrial Development Authority which is primarily responsible for administering Industrial Revenue Bonds. The Authority has provided low cost financing for the Smithfield Foods/RCS facility; Smithfield Station; Union Camp and others. The State Department of Economic Development assists localities like Isle of Wight with prospects and industrial training. The State also offers funding for industrial access roads and provides for small community block grants and revolving loans.

In September 1988, Isle of Wight established an Economic Development Department and appointed a full time Economic Development Coordinator. The primary responsibilities of this new County department are to: facilitate existing business retention and expansion; attract new businesses and industries to the County; marketing and public relations; and assist the County in the acquisition of sites for future business and industrial opportunities. The County Economic Development Department and its Coordinator are responsible for promoting Isle of Wight's overall economic development program.

The Local Economy

Isle of Wight's local economy is directly influenced by the economic development of the Greater Hampton Roads Region. Regional economic development trends have a significant impact on the County. In recent years the region has experienced significant population, employment, retail sales, and income growth. Gross Regional Product (GRP) is the broadest measure of economic activity in a region. Over the period from 1969 to 1986, Hampton Roads GRP has been growing at an average rate of 3.3 percent annually, as compared to the U.S. Gross National Product of 3.4 percent annually. Regional construction, durable manufacturing, wholesale and retail trade, and services performed the best during this period. While the U.S. economy

outperformed Hampton Roads in the late 1960s to the mid 1970s, the reverse was true in the 1980s.

Overall, it can be said that Isle of Wight County is operating in the midst of a very healthy and growing regional economy.

Isle of Wight County has an above average growth rate as measured by national averages for population expansion, and retail sales increases. When the County is compared to the more urban localities in the Hampton Roads region it lags in these areas considerably.

The County's economy is solidly built on manufacturing. Approximately 57 percent of all jobs in the County in 1979 were in manufacturing... and 86 percent of the manufacturing positions were in three plants. Union Camp, Gwaltney and Smithfield Packing. It is presently estimated that 61 percent of all jobs in the County are in manufacturing. Currently more than 50 percent of all jobs in Isle of Wight are in these three establishments.

The County used to be a net producer of jobs. The County had more jobs within its borders than total residents employed. In 1979 it was estimated that there were 1,330 more jobs available in the County than people working. Presently there are more employees living in Isle of Wight than there are jobs available. As Isle of Wight continues to grow as a "bedroom community" more County residents are commuting to work elsewhere in the region.

Between 1970 and 1984 per capita income in Isle of Wight increased from $7,804 to $11,647. This represents a compound annual growth rate of 2.5 percent. During the same period, per capita income for the State had a compound annual growth rate of 2.4 percent, and per capita income for the U.S. had a compound annual growth rate of 1.6 percent. Per capita income in Isle of Wight is growing at a faster rate than both the State and nation as a whole. However, in 1984 Isle of Wight County per capita income was only 86 percent of the State average and 95.5 percent of the regional metropolitan area average.

Average earnings per worker in Isle of Wight increased from $14,343 in 1980 to $20,698 in 1986. This represents a total increase of 44 percent during the six year period. Average earnings per worker for the Hampton Roads Region increased by 46 percent during the same period. The average earnings per worker for the region as a whole in 1986 were $18,800, or only 90 percent of the Isle of Wight average. Within the region only Newport News had a higher average earnings per worker in 1986 ($20,909).

Isle of Wight County is geographically located so that it is constantly affected by larger and/or more densely populated neighbors. These include Franklin, Newport News, Hampton and Suffolk and, to a lesser degree, Portsmouth, Chesapeake, Virginia Beach and Norfolk. In addition, but just as important, the three major employers in the County are located on the extreme ends of the County. This means that these job opportunities are often more accessible to neighboring counties and cities than to parts of Isle of Wight County. Also, within reasonable commuting distance of the County are numerous industrial employment centers of 400 workers or more, plus government and trade oriented opportunities. A good highway system within the County and throughout Hampton Roads expedites movement to, from, and within the region. Thus, job commuting in and around Isle of Wight has traditionally been at a high level. Many people who live in Isle of Wight travel elsewhere to work while workers who live outside the County migrate into the County for jobs... principally to Union Camp and Smithfield Foods.

In fact, it is currently estimated that only about 5,000 people who live in Isle of Wight actually work in the County. This represents 50 percent of the total County work force. The remaining 5,000 persons travel to job opportunities in surrounding cities and counties. Another 5,000 persons (approximate estimate) migrate from other areas into the County for employment. Thus, it is estimated that current employment consists of:

+5,000 people who live in the County
+5,000 people who migrate to the County
-5,000 people who leave the County for Employment
10,000 Total County Work Force.

A large share of the people who work in the County but live elsewhere have higher paying jobs than the average in-County resident. Many of these out of County residents probably work at the three major employers located near County Borders (Union Camp, Gwaltney, and Smithfield Packing). County residents who work outside of the County are most likely expending retail dollars at businesses located in other jurisdictions near where they work. Likewise, County workers who live elsewhere are spending their wages near their homes. These trends result in a net loss of dollars spent in the Isle of Wight local economy. This phenomenon also makes it difficult for Isle of Wight to generate a critical mass of local retail and service dollars needed to support expanded retail and service businesses within the County.

Major barriers to local economic development include; lack of sewage treatment capabilities, limited water systems, restricted housing, few industrial sites, a small labor pool and high electric rates. **Significant pluses** include the highway system and motor freight line service, proximity to markets, very reasonable taxes, low construction costs, excellent livability, community backup services and products, air service and water transportation service.

Goals and Objectives

The goals and objectives of Isle of Wight's economic development program are based on several important County needs. The County needs to diversify its economic base so as not to be so dependent on only two major industry types, meat packing and paper and wood products, thus enabling the County economy to endure any downturns in the economy which might negatively impact these industries. The County needs to expand its non-residential tax base in order to keep local residential property taxes down as demand for additional and improved public services and facilities continues to rise. There is a need to provide local jobs with competitive wages for existing County residents so that young people entering the work force will not have to leave the County for employment.

Retail and service businesses are lacking in the County. There is a need to locally expand this sector of the economy so that retail dollars are not lost to other communities. Retail and service businesses create jobs and income for the County's young people, elderly, and housewives. In order to attract more retail and service

businesses to Isle of Wight, additional residential development will be required to create a critical population mass and effective consumer market.

The overall goal of Isle of Wight's economic development efforts is:

> **To diversify and expand the County's economic base to provide a broad range of employment and commercial opportunities within the framework of the County's overall growth management goals and objectives.**

However, this goal needs expansion and clarification to be clearly understood. Local objectives for economic growth should consider the type and quality of jobs desired in the community. Other factors which should be considered include; the prevailing wages offered by a company, the impacts on the local environment, and compatibility with the rural and residential characteristics of the County.

Objectives for achieving the County's economic development goals include:

- Strengthen local business/industry retention efforts and assist existing businesses and industries to expand within Isle of Wight.

- Attract relocating businesses and industries to Isle Of Wight which would compliment the County and its existing economic base.

- Encourage and promote the start-up and growth of new businesses in the County.

- Provide appropriately zoned land areas suitable for future industrial and commercial growth within designated Development Service Districts, Activity Centers, and to a limited extent, Community Centers.

- Assign priority to the adequate provision of infrastructure to areas designated for future industrial and commercial development (i.e. roads, water, and sewer systems).

- Promote the balanced development of residential, commercial, and industrial land uses and activities within the County.

- Ensure that future commercial/industrial development is located, designed, and built so as to be compatible with surrounding residential development and the rural character of the County.

- Ensure that future commercial/industrial development is located, designed, built, and operated so as not to degrade the County's natural environment.

- Promote additional tourism/travel related development which compliments the rural, scenic, and historic qualities of Isle of Wight.

Implementation Recommendations

General Recommendations

Recommendations listed here are relevant to the development of all sectors of Isle Of Wight's local economy.

- Potential sites within the County for industrial, commercial and office development should be identified based on the following locational and market criteria: location within designated Development Service Districts, Activity Centers, and to a limited degree, Community Centers; availability of public services (water and sewer); access to major transportation routes; and compatibility with surrounding development.

  The Northeastern Development Service District has generally been identified as appropriate for additional industrial, retail, office and service businesses due to proximity to major residential population centers. The Central Development Service District has generally been identified as appropriate for additional industrial development, particularly warehousing and distribution businesses due to excellent highway and rail proximity. The Southern Development Service District has generally been identified as appropriate for additional industrial development due to the location of existing industries in the Franklin area. Community centers are generally identified as appropriate for limited commercial activity oriented to servicing the needs of the local community and surrounding rural areas.

- County development ordinances should be revised to permit industrial, commercial, and office development in designated areas. Performance standards for environmental protection and development appearance should be incorporated into the development ordinances for these types of development.

- Hampton Roads Sanitation District (HRSD) sewer lines should be extended within the designated Development Service Districts to accommodate economic development. As a priority, HRSD sewer service should first be extended into the Northeast and Central Development Service Districts. When demand is sufficient, it should then be extended into the County's Southern Development Service District.

- The County should strive to provide a high quality public education system.

- The County should demonstrate a positive interest in existing and new industries, especially those providing above average wages and an increased variety of job opportunities.

- Emphasis should be placed on the attraction and growth of businesses that maintain and enhance the County's valued quality of life, including environmental quality.

- The County should promote an increased linkage among new and expanding businesses by promoting the local purchase of goods and services.

- The County should formulate public/private partnerships to provide well-serviced and properly located industrial sites that can be developed quickly.

- Large sites particularly suited for industrial parks should be preserved exclusively for appropriate industrial uses, particularly light and medium manufacturing activities situated in a campus like setting.

- The County should continue to emphasize and promote tourism as a clean, exporting industry. This should be accomplished through coordination with local, regional and State tourism development boards and agencies.

- The County should assist and encourage all local businesses to identify and penetrate new export markets.

- Working with local businesses, the County should encourage the continuation of career preparation and employment orientation for area residents through ongoing training programs.

- The County development ordinances should be updated to permit and encourage planned unit development concepts which promote a compatible mix of office, commercial, industrial, and residential uses.

- Important aspects of the County's quality of life, such as public parks, quality secondary education, quality residential neighborhoods, environmental quality, and agriculture and open spaces, should be preserved and protected.

- The Board of Supervisors, Planning Commission, Board of Zoning Appeals, Department of Community Development, Office of Economic Development, and other County boards and agencies should work closely together to coordinate policies and activities relating to economic development. Better coordination and cooperation should increase efficiency and minimize potential policy conflicts.

Business Recruitment

Decisions concerning business relocation or expansion are made primarily by company executives. Local recruiters supply these individuals with information concerning the community, its people, the economy, local government and the taxing structure, proximity to markets, available sites and infrastructure, etc. The Isle of Wight Office of Economic Development has compiled all of this information and makes it available upon request. Business recruitment efforts should focus on those industries

and businesses which will provide family-wage jobs and require skill levels commensurate with those existing in the County labor force.

- The County should continue to work with the local Chamber of Commerce in a cooperative spirit in its efforts to attract new industry to Isle of Wight.

- Recruitment efforts should be targeted to growth industries which will become major exporters. Warehousing and distribution businesses have been identified as activities that the County should try to attract.

- Recruitment efforts should also be focused on industries and businesses which can provide needed supplies and services to existing businesses and thus replace the importation of such supplies and services.

- The County Office of Economic Development should continue to keep its marketing materials and information current so that businesses interested in the County can be supplied with up-to-date information for decision-making purposes.

- The County should focus on recruiting businesses and industries which compliment the strengths of the local economic base and also provide diversity to the local economy.

Expansion of Existing Businesses

Expansion of existing businesses is a major creator of jobs and investment in any community. The County should focus efforts to assist and support local business growth. The following implementation recommendations can be applied to these businesses.

- The County should assist local businesses to locate new export markets.

- The County should encourage existing businesses to develop new products to reduce imports. The County should support the research and development programs of local businesses.

- Isle of Wight should provide existing businesses with opportunities to expand, using available incentives for financing, provision of land and utilities, and other factors such as tax abatement and tax increment financing.

Formation of New Businesses and Survival of Small Businesses

In the past several years, the entrepreneur and small business person have been elevated to a prominent position in economic development policies at all levels of government. Small and new businesses tend to provide most of the employment growth in a community, and they tend to produce more innovations than large companies. New and small companies are often interested in growth and expansion, while existing large companies need to pay attention to maintaining their size and dominance in their respective markets.

Also, small businesses tend to suffer disproportionately from the imperfections of the marketplace. Small businesses are often faced with a more difficult or expensive process when obtaining the products, supplies, and information they need to survive and grow. Many start-up small businesses do not survive the first five years. The chances of them surviving and prospering are enhanced proportionally with the amount of assistance provided them. For these reasons, the promotion of new business formation and small business survival is a good place for the use of public resources and assistance.

- The County should encourage the formation of a Coordinating Committee to identify and promote the various small and new business programs available in Isle of Wight County, including Small Business Administration programs and loans.

- The County should coordinate public/private partnerships to establish incubator facilities for new and small businesses. This would help to reduce the need for start-up capital and expensive overhead costs which often prohibit many entrepreneurs.

- The County should help develop programs to assist small businesses with marketing of products and services. Roundtable seminars and conferences

would provide small business entrepreneurs an opportunity to meet to discuss common problems and share solutions.

- The County should assist local entrepreneurs to locate and acquire financing to start new businesses. Programs to match local entrepreneurs to venture capital sources and low interest loan programs should be instituted.

- The County should work with the local finance and banking community to increase the availability of seed and start-up capital for new and small businesses.

- The Office of Economic Development should work to provide small and new businesses with the necessary management and marketing guidance to facilitate success.

Summary

Improving the quality of life for Isle of Wight County residents should be the overriding concern of the County's economic development program. Implicit to this concern is the premise that neither economic growth per se nor industrial development itself is always desirable. Rather, the improved welfare of County residents as measured by changes in unemployment, real incomes, standard of living, and environmental quality should be the ultimate goal of economic development efforts. Simple aggregate growth or industrial expansion is acceptable only when consistent with these goals and objectives.

It should always be remembered that Isle of Wight's quality of life attributes are what makes the County such a pleasant place to live and work. The location, type, and quality of future commercial and residential development should be managed so as to ensure economic development occurs in a beneficial manner for all County residents.

Chapter 10

Historic and Cultural Preservation

Chapter Ten: HISTORIC/CULTURAL PRESERVATION PLAN

Introduction

History can be kept alive through education and preservation, both of which can take many forms and vary in intensity. History is something one lives in daily and is not only a "do not touch" museum. Old homes can be restored such that they are comfortable homes of today or they could be refurbished as an office. Historic sites can honor the past while providing a place for leisure activities. An old church can still hold worship services similar to those held one hundred years ago. A number of programs exist to help individuals and groups temporarily or permanently protect sites and structures considered significant. The past is a building block for the future and, if a plan is to be comprehensive, it must incorporate that past as a key element of planning for the future.

Continued historic and cultural resource preservation and enhancement through sensitive land use planning and other administrative means ultimately provides Isle of Wight County with a number of benefits including:

- Promotion of a strong sense of community pride for County residents;
- Community revitalization through the renovation or adaptive reuse of older structures;
- Increased property values and tax revenues as a result of renovation and restoration; and
- Increased revenues from tourism generated.

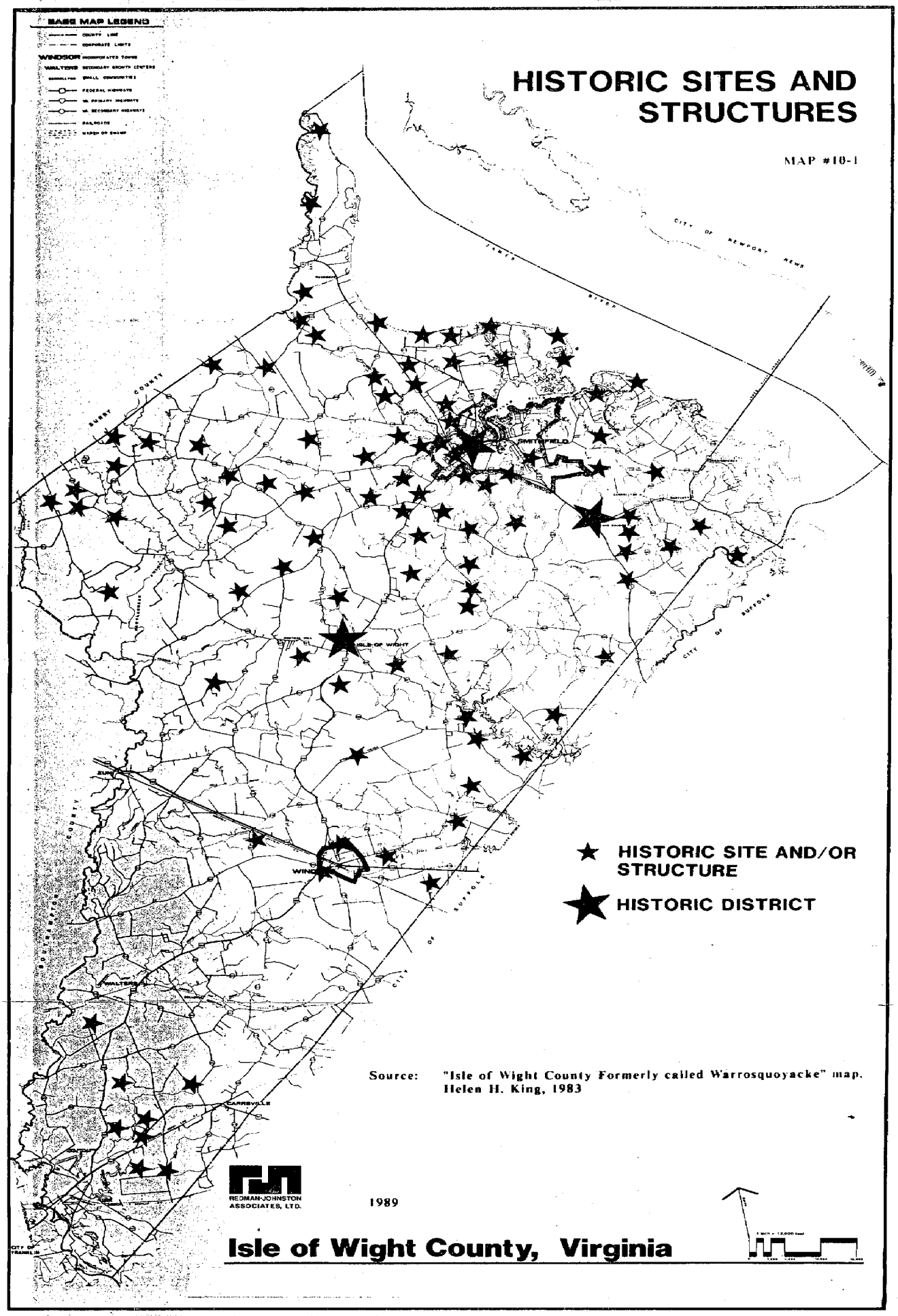
Background Information

Isle of Wight County, one of the original 8 shires of the English colony, was occupied by the Worrosquoyacke Indians when Captain John Smith first visited the area. A few years later in 1619, colonists established the County's first English settlement near the mouth of Lawne's Creek. An Indian massacre by once-friendly Indians and disease took toll of those early settlers before the area became more

established and prosperous. Named after an island off the coast of England, origin of some of the County's principal patentees, Isle of Wight's early economy was based on tobacco. Agriculture has been a mainstay of the County's economy since the English occupied the area. Some of the agricultural products have included corn, peanuts, cotton and timber. Pork products such as ham and bacon are also historic sources of employment and they still play a major role in the County's economy.

Boundaries for the original Worrosquoyacke shire encompassed a larger area than today's County boundaries. Land had been "lost" to the Counties of Nansemond (present City of Suffolk), Brunswick and Southampton through the mid-1700s. County-governed land has decreased slightly since then through the incorporation of two towns. Established in the mid-1600s, the Town of Smithfield became incorporated in 1752. One-hundred and fifty years later, Windsor became the second town in the County to be incorporated.

Historically significant structures and sites, including the Pitt-Blackwell-Turner house and the Homestead (Goodrich House), represent landmarks that are important components of the County's character as unique contributions to its diverse qualities. Other examples include the Young House, home of a number of the County's Clerks who were also responsible for saving the records during both the Revolutionary War and the Civil War; Fort Boykin, established in the 1600's for protection against the Spanish and the Indians and used in both the American Revolution and the War of 1812, which was abandoned in the Civil War when its guns were outranged by Yankee gunboats; Hardy's Mill, the oldest grist mill on record in the County; Saint Luke's Church (Old Brick Church) which is said to be the oldest existing Protestant church within its original walls in America; and Smith's Neck, land which is the only known original land grant in Isle of Wight County which is today owned in part by direct descendants of the grantee - Lloyd N. King, Lloyd N. King, Jr. and Ollie S. King, III. These unique resources are significant components of social fabric and community character and should be preserved if their qualities are to continue to influence the appearance, social fabric, and quality of life in the County.


BASE MAP LEGEND
COUNTY LINE
CORPORATE LIMITS
WINDSOR INCORPORATED TOWNS
WALTERS SECONDARY GROWTH CENTERS
SMALL COMMUNITIES
FEDERAL HIGHWAYS
VA. PRIMARY HIGHWAYS
VA. SECONDARY HIGHWAYS
RAILROADS
MARSH OR SWAMP
HISTORIC SITES AND STRUCTURES
MAP #10-1
CITY OF NEWPORT NEWS
JAMES RIVER
SURRY COUNTY
SMITHFIELD
ISLE OF WIGHT
CITY OF SUFFOLK
WINDSOR
WALTERS
CARRSVILLE
HISTORIC SITE AND/OR STRUCTURE
HISTORIC DISTRICT
Source: "Isle of Wight County Formerly called Warrosquoyacke" map, Helen H. King, 1983
REDMAN-JOHNSTON ASSOCIATES, LTD.
1989
Isle of Wight County, Virginia

Issues

While much has been done to preserve local architecture and history, many opportunities still exist to further preservation effort programs.

A number of existing programs are available which provide assistance in protection or preservation, offer tax benefits, provide professional historical/architectural consulting, and so forth. Information on programs including the National Historic Landmark, National Register of Historic Places, Conservation and Preservation Easements, and Historic Overlay Districts can be found in the accompanying *Technical Report* and such publications as *Virginia's Heritage: A Property Owner's Guide to Resource Protection* published by the Virginia Department of Conservation and Historic Resources.

The Isle of Wight County Zoning Ordinance has a small section describing the specifications of a Historic District Zone. In 1982, the County's only Historic District - St. Luke's - was designated. Isle of Wight Courthouse is already in the process of being designated a Historic District Zone, and there are other structures in the County, such as the Courthouse Complex, which could benefit from being in such a district.

Goals and Objectives

Isle of Wight County is the home to numerous historically significant sites and buildings, some of which are protected, others only acknowledged as being significant and many of which are yet to be noted as significant. By preserving the County's historic heritage, County residents can keep their strong, proud base on which to grow. Therefore, the goal of the Historic and Cultural Preservation element of the Plan is to:

Preserve and enhance the County's rich cultural and historic heritage.

In accordance with this goal, the following objectives have been established:

- Maintain and enhance mechanisms for preservation of significant and important historic sites, properties and structures.

- Preserve the heritage, contributions, and interests manifested by the Native American cultures.

- Identify historically significant sites and maintain the integrity of those areas of the County.

- Provide opportunities for public and County resident interaction with historic and cultural influences to enhance their appreciation of these qualities of County life.

Implementation Recommendations

Many historians have long believed that the old is to be appreciated for its beauty and its continuing usefulness, and should be made whole and fresh; the new should fit gracefully into the existing town or its environs. In order for the County to continue to maintain its sense of history in America, regulations need to be developed.

The following strategies are designed to facilitate achieving the Plan goal of preserving and enhancing the County's rich cultural and historic heritage:

- **Encourage the establishment, maintenance and updating of a comprehensive listing of historical districts and sites** in Isle of Wight County which includes discussion of significant sites.

- **Locate open spaces** in developments **and parks to include historical resources.**

- **Promote the adaptive reuse of historic structures** for public and private uses including, but not limited to, Bed and Breakfast establishments, craft/gift shops, museums and artisans when such uses minimize exterior structural alteration.

- **Encourage,** through the use of various incentives, **the preservation of historic structures.** Include tax incentives for major structural or exterior renovation or the donation of protective historic easements.

- **Encourage**, through the use of various incentives, **the establishment of local historic districts** throughout the County. Include tax incentives and recognition through the awarding of plaques.

- **Rewrite the local Historic District overlay section within the Zoning Ordinance** such that it provides more detailed guidelines for users. Within it, develop a Historic Area Work Permit to regulate and monitor major structural or exterior renovation.

- **Promote historic sites** in the County through tourism via such items as pamphlets distributed at the Chamber of Commerce and other locales.

- **Support efforts of preservation and cultural organizations and encourage open communications** between those same organizations.

- **Encourage school system and community wide participation** in historical resources management program through education and public awareness.

- **Support educational efforts** by promoting awareness of existing tools as is done in "A Property Owner's Guide to Resource Protection" published by the Virginia Department of Conservation and Historic Resources.

- **Support state and Federal programs**, such as the National Register of Historic Places, which provide incentives to foster protection or restoration of structures.

- **Review development proposals** which may adversely affect historic resources when granting permits for development or other forms of land alteration, such as grading, mining, etc. Negotiate mitigation measures where possible to reduce impact.

- **Allow developers to apply development rights to other tracts of land** within the County to prevent intense development from occurring adjacent to a historic district.

- **Support archaeological research** through such techniques as preservation and through encouraging developers to allow archaeologists a limited time to excavate their land before development begins.

Summary

Isle of Wight County has a past rich in local history, both colonial and pre-colonial. Efforts already exist to preserve that history for future generations. By supporting existing projects, educating residents, and continuing to expand rehabilitation and preservation efforts, County residents will have a heritage that they can give to their children and to the passing tourists.

Chapter 11

Design

Chapter Eleven: DESIGN

Introduction

This chapter addresses the many aspects of development design in Isle of Wight County. Development design can be generally defined as the management of the visual and physical development of the built environment. Primary emphasis is placed on the preservation of the County's rural character. The intention is to respond to growing public concern about the increasing transformation of Isle of Wight's traditional rural landscape to sprawling suburban residential and strip commercial development similar in nature to the land use pattern ringing most of the metropolitan centers throughout the Hampton Roads region and the nation. Concern is that, if measures are not taken now, Isle of Wight could become conventionally suburban, with only vestiges of the traditional rural landscape -- compact village centers, scattered farms, open fields, forests -- lingering on to remind us of what we had all lost.

Managing development design to maintain and enhance the rural character and aesthetics of the County is an important component of Isle of Wight's Comprehensive Growth Management Plan. Application of development design standards is appropriate anywhere human features are present, and where the physical and visual properties of development can significantly influence the character of the County's rural and suburban areas, as well as urban areas. Development design guidance, or the lack thereof, significantly affects real estate values, community pride, a sense of obligation to private property, personal enjoyment and satisfaction, and the overall investment climate in Isle of Wight County.

This chapter will discuss and recommend various approaches to positively influencing the development design of areas throughout Isle of Wight County.

The Rural Landscape

Within those areas of the County designated as Rural/Agricultural Conservation Districts, the Plan recommends providing zoning ordinance and subdivision regulation incentives for cluster development. Through the clustering approach for rural subdivisions, the developer is able to increase base densities and decrease lot sizes in return for setting aside 50 to 70 percent of the overall parcel as open space. The

resultant open space would be permanently protected by conservation restrictions for future agricultural use, forestry, or simply community open space.

Buildings would either be located in a wooded fringe at the edge of fields, or screened and setback from the fields and public roadways by a landscaped buffer area. Buildings should be sited so that obstruction of views from public ways will be minimized. This can be achieved by taking advantage of topographic changes or existing vegetation. This requirement would preserve rural views and enhance the rural image of the County. Although individual septic systems could be built for each house, joint systems shared by several houses would become possible, allowing siting on the most suitable soils in the tract, and at the greatest distance from any wells. Subdivision lots would be accessed from a single private road instead of numerous driveways fronting on public routes.

Everyone seems to benefit when such creative land development strategies are followed. Farmers who view their land as their "pension" no longer have to destroy their farms in order to retire with a guaranteed income, as their equity is not diminished. Land will still remain available for productive agricultural activities and open space which contributes to rural character. The County government does not have to raise large sums of money to subsidize agricultural preservation through acquisition of land or conservation easements. The administrative complexities posed by alternative measures such as Transferrable Development Rights (TDR) programs are avoided. Developers are not placed under any unreasonable constraints, and realtors gain a special marketing tool, in that the rural views from the new houses will be guaranteed by the conservation easements which protect the open fields and forests from future development. And finally, housing costs may be reduced because of smaller lot sizes and lower land costs.

This residential land development approach is specifically designed for rural areas, where local officials and residents are looking for rural and agricultural conservation options that involve little public expenditure, are easy to administer, allow full equity for rural land owners, and are not unfair to developers.

Community Centers

The Plan designates numerous Community Centers throughout the rural areas of Isle of Wight. These centers are established crossroads communities and villages which have traditionally served as focal points for the surrounding rural community. They play an important functional role in providing homes, limited neighborhood-oriented commercial services and businesses, and civic buildings such as churches, post offices, fire halls, etc. Many of the rural Community Centers throughout Isle of Wight contain historical structures which should be preserved through local historic district zoning.

These Community Centers each have a unique rural character and "sense of place" with which local residents easily identify. Development design standards for Community Centers would help to preserve their rural ambience while still accommodating limited future growth in a responsible manner. It is ironic that the traditionally tightly-knit village pattern so typical of rural areas is illegal to produce or emulate in many, if not most, rural Virginia communities today. Developers are required to rigorously separate different land uses and set each house on suburban size lots. Such regulations inadvertently destroy the rural character of existing Community Centers at a rapid pace and prohibit the development of other villages and crossroads communities.

The following are recommended development design guidelines for existing and future Community centers:

- Residential, small-scale commercial and public/semipublic uses should be permitted to coexist adjacent to one another as was done in traditional rural villages.

- Where existing buildings express a traditionally modest (pre-zoning) front setback, creating a characteristically close relationship with the street, it would be highly desirable to retain this pattern in order to preserve the communities character.

- Off-street parking lots should be placed only to the rear or side of buildings. the visual impacts of parking areas upon community character can easily be reduced through landscaping and buffering requirements.

- Open storage areas, exposed machinery, and outdoor areas used for the storage and collection of rubbish, should be visually screened from roads and surrounding land uses.

- Because roadside trees are extremely important to the character of any town, removal of trees over five inches in diameter should be absolutely minimized, especially along roadways. removal of existing trees can usually be lessened by shifting the site of the building, parking lot, or entrance/exit drives. In addition , planting of new trees along roads is encouraged to reinforce rural character.

- Lighting should be controlled in both height and intensity to maintain rural character. Luminaries should be shielded to prevent excessive lighting and glare beyond lot lines onto neighboring properties or public ways.

- It is particularly important that new construction be designed and built to blend with its surroundings. New construction in Community Centers should be compatible with surrounding buildings in terms of formal characteristics such as height, massing, roof shapes, and door and window proportions. Where new construction is surrounded by existing historic buildings, building height and exterior materials should be harmonious with those of adjacent properties.

- One of the most readily apparent aspects of community character is signage. Since signs are intended to be highly visible and attract attention, they often produce a lasting impression on locals and visitors. Signage standards for Community Centers should enhance the unique character of Community Centers. Signs in these areas should relate to pedestrians and to people in slow moving vehicles. They should be designed to be readable to these people, thereby encouraging shoppers and passerbys to stop and linger. Large auto-oriented signs are a modern addition in these areas and are inconsistent with both the scale of buildings and rural village character. The size, materials, color, lettering,

placement , and illumination of signs in Community Centers should respect the unique character of existing buildings.

- Provisions should be made in the County's development ordinances to accommodate the limited growth of existing Community Centers in a manner which compliments the existing character of the center. Provisions should also be made to allow for the development of additional mixed-use Community Centers in appropriate rural locations throughout the County.

Highway Corridors and Scenic Roadways

Certain major highways and roadways throughout the County have been designated in the Plan as important corridors where access and aesthetics should be controlled in order to either avoid unappealing forms of commercial strip-development and resultant traffic congestion, or to preserve scenic rural views. Both of these objectives have great merit for the maintenance and improvement of rural character in Isle of Wight.

Along designated scenic routes, development should be limited and buffered from roadway view. Signage should also be limited to avoid detracting from rural vistas. Along major County highways such as Routes 17, 10, 32, 258, 460, and 58, limiting access is vital to preserving roadway capacity, decreasing congestion, and improving safety. Commercial development should not be stripped along the corridor, but rather, it should be concentrated into defined commercial nodes located at major road junctions.

The large-scale and permanent loss of scenic views, characteristic landscapes, and open space is perhaps the most devastating visual result of conventionally regulated commercial highway development in rural areas. The tendency has been for zoning to encourage new development to line both sides of major roadways, eventually obscuring fields, pastures, or woodlands behind commercial frontage lots. This kind of homogenous development contributes greatly to the loss of rural character and community identity.

When zoning highway commercial areas, the County should not succumb to the "broad brush" approach of designating all roadside areas for new commercial development,

but should instead examine the rural landscape to identify the amenities and visual resources which are present. Rather than allowing linear developments, commercial zoning can break the standard pattern by designating commercial nodes in compact, centralized areas, with visually important landscapes protected in between. Commercial development, regardless of where it is located in the County, should also be subject to development appearance standards which ensures compatibility to surrounding land uses and promotes a high quality built environment that compliments the community character of Isle of Wight.

Development Appearance Standards

All future development in the county, except for single-family homes and farm buildings, should be subject to design review for compliance with minimum development appearance standards. These minimum standards that should be achieved are performance standards rather than inflexible and stringent criteria. The intent of these performance standards is to promote quality development that will compliment the community character of Isle of Wight. One of the reasons for implementing these standards is, of course, to positively influence development aesthetics. However, this objective is justified by the greater goals of protecting and enhancing real estate values, fostering of civic pride, and improving the overall investment climate within the County.

These standards are not intended to restrict imagination or development creativity, but rather, to assist in focusing on development design principals which should result in enhancing the visual appearance of the built environment in Isle of Wight. The development appearance standards relate to such factors as: relationship of buildings to the site; relationship of existing buildings and site to adjoining areas; landscape and site treatment; building design; signs; and, maintenance. These standards should not be considered cost prohibitive or overly restrictive since they embody common sense design principles which were traditionally employed throughout the country prior to the advent of post-war suburbanization.

The following are recommended development appearance standards for future multi-family, commercial and industrial development in all areas of Isle of Wight County:

Relationship Of Buildings To Site

- The site should be planned to accomplish a desirable transition with the streetscape and to provide for adequate planting, safe pedestrian movement, and screened parking areas.

- Site planning in which setbacks and yards are in excess of zoning restrictions is encouraged to provide an interesting relationship between buildings. Buildings in Community Centers are encouraged to minimize front setbacks to enhance the traditional street/building relationships typically found in rural villages

- Parking areas should be treated with decorative elements, building wall extensions, plantings, berms, or other innovative means so as to screen parking areas from public ways.

- Without restricting the permissible limits of the applicable zoning district, the height and scale of each building should be compatible with its site and existing (or anticipated) adjoining buildings.

- Newly installed utility services and service revisions necessitated by exterior alterations should be placed underground wherever possible.

Relationship of Buildings and Site to Adjoining Area

- Adjacent buildings of different architectural styles should be made compatible by such means as screens, site breaks, and materials.

- Attractive landscape transition to adjoining properties should be provided.

- Harmony in texture, lines, and masses should be required. Monotony of design should be avoided.

- Adjacent incompatible land uses should be screened from one another by landscaping, berms, walls, and fences.

Landscape and Site Treatment

- Where natural or existing topographic patterns contribute to beauty and utility of a development they should be preserved and developed. Modifications to topography should be permitted where it contributes to good appearance, or where it is necessary.

- Grades of walks, parking spaces, terraces, and other paved areas should provide an inviting and stable appearance for the pedestrian.

- Landscape treatment should be provided to enhance architectural features, strengthen vistas and important axes, and provide shade.

- Unity of landscape design should be achieved by repetition of certain plant varieties and other materials and by coordination with adjacent development.

- Plant material should be selected for interests in its structure, texture and color, and for its ultimate growth. Plants that are indigenous to the area and others that will be hearty, harmonious to design, and of good appearance should be used.

- In locations where plants will be susceptible to injury by pedestrian or motor traffic they should be protected by appropriate curbs, tree guards, or other devices.

- Parking areas and traffic ways should be enhanced with landscaped spaces containing trees or tree groupings.

- Where building sites limit planting, the placement of trees in parkways or paved areas should be required.

- Screening of service yards and other places that tend to be unsightly should be accomplished by use of walls, fencing, plantings, or combinations of these. Screening should be effective in winter and summer.

- In areas where general planting will not prosper, other materials such as fences, walls, and pavings of wood, brick, stone gravel, and cobbles should be used. Carefully selected plants should be combined with such materials where possible.

- Exterior lighting, when used, should enhance the adjoining landscape. Lighting standards and building fixtures should be of a design and size compatible with the building and adjacent areas. Lighting should be retrained in design and excessive brightness avoided.

Building Design

- Architectural style should not be restricted. Evaluation of the appearance of a project should be based on the quality of its design and relationship to surroundings.

- Buildings should have good scale and be in harmonious conformance with permanent neighboring development.

- Materials should have good architectural character and should be selected for harmony of the building with adjoining buildings. Materials should be of durable quality. Materials should be selected for suitability to the type of buildings and the design in which they are used. Buildings should have the same material, or those that are architecturally harmonious, used for all building walls and other exterior building components wholly or partly visible from public ways. In any design in which the structural frame is exposed to view, the structural materials should be compatible within themselves and harmonious with their surroundings.

- Building components, such as windows, eaves, doors. parapets, should have good proportions and relationships to one another.

- Colors should be harmonious and should use only compatible accents.

- Mechanical equipment or other utility hardware on roof, ground, or buildings should be screened from public view with materials harmonious

with the building, or they should be so located as not to be visible from public ways.

- Exterior lighting should be part of the architectural concept. Fixtures, standards, and all exposed accessories should be harmonious with building design.

- Refuse and waste removal areas, service yards, storage yards, and exterior work areas should be screened from view of public ways.

- Monotony of design in single or multiple building projects should be avoided. Variation of detail, form, and siting should be used to provide visual interest. In multiple building projects, variable siting of individual projects should be used to prevent a monotonous appearance.

Signs

- Every sign should have good scale and proportion in its design and in its visual relationship to buildings and surroundings.

- Every sign should be designed as an integral architectural element of the building and site to which it principally relates.

- The number of graphic elements on a sign should be held to the minimum needed to convey the sign's major message and should be composed in proportion to the area of the sign face.

- The colors, materials, and lighting of every sign should be restrained and harmonious with the building and site to which it principally relates.

- Each sign should be compatible with signs on adjoining premises and should not compete for attention.

Maintenance - Planning and Design Factors

- Continued good appearance depends upon the extent and quality of maintenance. The choice of materials and their use, together with the

types of finishes and other protective measures should be conducive to easy maintenance and upkeep.

- Materials and finishes should be selected for their durability and wear as well as for their beauty. Proper measures and devices should be incorporated for protection against the elements, neglect, damage, and abuse.

- Provisions for washing and cleaning of buildings and structures, and control of dirt and refuse should be incorporated in the design. Configurations that tend to catch and accumulate debris, leaves, trash, dirt, and rubbish should be avoided.

- Provisions for landscape maintenance and replacement (i.e. native species) should be added.

Summary

Essentially, the broad choice in future development patterns for Isle of Wight is between a creative extension of the traditional rural character concept, and repetition of conventional suburban development practices, wherein 100 percent of the tract is covered by streets, houses, yards, and strip commercial development. The former enables a large proportion of new homes and businesses to be sited so as to command uninterrupted views across open fields, pastures, and woodlands permanently protected from future development.

When a subdivision, shopping center, or other large scale development is proposed in a rural setting, residents and County officials often have difficulty convincingly describing just what is at stake. Fortunately, or unfortunately, the quality of a rural landscape is not easily measured in dollars and cents. Lacking a direct market value, however, a rural landscape might wrongly be assumed to have no value. This is a very real dilemma in a society which knows the value of very few intangibles, such as rural character.

Application of the development design standards described in this chapter should help the next generation of development to be skillfully fitted into the County in a

manner which preserves and enhances rural character and quality of life. Incorporation of these standards into County development ordinances will help ensure that necessary discussion occurs and that development design choices are made consciously rather than by default. This development design program should address the loss of character due to the homogeneous visual appearance of suburban sprawl in Isle of Wight County.

Chapter 12

Implementation

Chapter Twelve: IMPLEMENTATION

Planning is a continuous process. The Comprehensive Growth Management Plan is intended to capture a vision of the future of Isle of Wight County. As such it provides a basis for a wide variety of public and private actions and decisions which should be undertaken in the County over time. The Plan is not a static document because communities are not static. They are continually evolving and changing. The Plan provides general guidelines and recommendations to the County in order that piecemeal improvements and day to day development decisions can be properly evaluated against their long-range impact upon the County and their relationship to existing settlement patterns.

The Plan, and in particular the Growth Management and Land Use element, indicates the proposed conceptual development pattern of the County. However, it is not a detailed blueprint. Local conditions, values, and objectives change as a result of evolving economic and political pressures and the Plan should subsequently be responsive to these changes. The Plan is not a document which encourages regimentation. It is, however, a guide which encourages patterns of development which, in turn, permit orderly and efficient community growth to occur within the overall context of a rural county setting.

The impact of the Comprehensive Growth Management Plan, in the long-term, will be measured by the degree to which the Plan's implementation recommendations are translated into reality. These recommendations, no matter how carefully conceived, can have little effect in guiding growth and development in this County, if they are not implemented.

The following is a chapter by chapter summary of major implementation recommendations contained in the Isle of Wight County Comprehensive Growth Management Plan.

CHAPTER 2: GROWTH MANAGEMENT AND LAND USE

1. Comprehensive revision of the County development ordinances (Zoning and Subdivision) to accommodate the Growth Management Plan concept which establishes Development Service Districts; Activity Centers; Planned Unit Development Districts; Rural/Agricultural Conservation Districts; Community

Centers; Neighborhood Conservation Districts; Resource Conservation Districts; and Highway Corridor Districts.

CHAPTER 3: RURAL CHARACTER AND AGRICULTURAL PRESERVATION

1. Creation of a Rural Character and Agricultural Preservation zoning district to accommodate agricultural activities, forestry activities, agricultural support businesses, and limited residential development.

2. Zoning and subdivision provisions should be made within these districts to encourage cluster forms of rural residential development which preserve open space and maintain rural character.

3. Adoption of Right-to-Farm provisions for rural/agricultural areas which protect farmers from nuisance suits by residential property owners.

4. Creation of new and/or expanded Voluntary Agricultural and Forestal Districts throughout rural areas of the County.

5. Creation of a lower property tax structure for farms and property in return for agreements not to develop.

6. Encourage participation by farmers and rural property owners to participate in public and non-profit programs designed to foster land and water conservation.

7. Accommodation of growth in rural areas through the limited development of rural Community Centers.

8. Direct, through zoning provisions, the majority of future County growth to Development Service Districts where adequate community facilities and services are already in place or planned.

CHAPTER 4: ENVIRONMENTAL QUALITY

1. Adoption of a Local Program for Chesapeake Bay Preservation which includes all state mandated program elements and contains performance criteria for land use and development within designated Preservation Areas.

2. Adoption of similar protective measures for Non-Chesapeake Bay oriented rivers, tributaries, and wetlands.

3. Zoning provisions which limit the types and intensities of development permitted in designated Resource Conservation Districts.

4. Require proposed development within Resource Conservation districts to prepare and submit for review an Environmental Impact Assessment which identifies potential environmental problems and suggests appropriate mitigation strategies and plans.

5. Require evidence of all Federal, State, and local environmental and health permits as a condition of planning approval.

6. Prohibition of development within floodways and floodplains which limits natural water storage capacity. Use of floodway fringe areas should be limited to open space, recreational and other non-structural uses.

7. Development of guidelines and regulations for locating and developing extractive industries which can adversely impact the natural environment.

8. Incorporation into development ordinances of new performance standards for environmental protection in sensitive areas which protect such natural features as wetlands and critical plant and wildlife habitats.

9. Incorporate no net increase in stormwater runoff provisions into the County's Sediment and Erosion Control Ordinances for areas within designated resource Conservation Districts.

10. Incorporate zoning provisions which preserve natural vegetation during the development and construction process. Clear cutting of sites should be expressly prohibited.

11. Incorporate zoning and subdivision provisions which promote cluster forms of development and require minimum amounts of permanent open space.

12. Enact slope density regulations which limit development on steep slopes.

13. Control concentrations of individual on-site sewage treatment facilities in rural and environmentally sensitive areas through density controls, particularly in areas with soils constraints for septic systems.

14. Explore the development of alternative drinking water supplies in areas where groundwater levels and quality are declining.

15. Coordinate with State and Federal agencies and non-profit conservancy organizations to protect environmentally sensitive lands through acquisition and/or protective easement programs.

CHAPTER 5: TRANSPORTATION

1. Institute Capital Improvements Programming for the pre-planned expansion of the County's road and highway system. This will involve close coordination between the County Offices of Community Development and Public works, the Southeastern Virginia Planning District Commission (SVPDC) and the Virginia Department of Transportation (VDOT).

2. Improve coordination between the County, VDOT, and SVPDC on matters relating to planning and programming improvements and transportation systems management.

3. Establishment of roadway Level of Service Policies which expressly state the County's expectations concerning the quality of highway service it desires to maintain or achieve as growth and development occurs.

4. Require Traffic Impact Analyses for all major new developments as part of the development review and approval process. These analyses should determine the traffic impact of a project on the road system. The Traffic Impact Analysis should also identify transportation system improvements required to maintain or achieve a required level of service.

5. Develop an Access Management Program to control access along key road segments or near major intersections as development occurs.

6. Establish zoning provisions which prohibit strip commercial and industrial development along roadways, and encourage the development of planned commercial and industrial parks with controlled access.

7. Establish zoning provisions for planned unit developments which contain mixed land uses in order to minimize travel requirements between homes, commercial businesses, and employment centers.

8. Utilize conditional zoning provisions to negotiate proffers for off-site transportation improvements and right-of-way dedications as part of the development review and approval process.

9. Evaluate the potential for using an impact fee system which determines a per unit share for areawide transportation improvements based on the estimated amount of traffic the project will generate.

10. Explore using special taxing districts to fund the development of service roads for development along key highway corridors.

11. Advance acquisition and/or reservation of road right-of-ways for planned improvements.

12. Develop local circulation plans for Development Service Districts, designated Activity Centers, and selected Community Centers. These local circulation plans can be used to acquire future right-of-ways, preserve access, and to negotiate transportation system improvement proffers.

13. Evaluate the need and demand for transit service for the Development Service Districts.

14. Encourage the development of Transportation Management Associations (TMAs) within Designated Development Service Districts.

15. Facilitate the construction and planning of County transportation system improvements identified in the Transportation Plan and in the VDOT Six Year Improvement Program.

CHAPTER 6: COMMUNITY FACILITIES AND SERVICES

1. Provision of adequate community facilities and services (sewer, water, schools, etc.) within the three designated Development Service Districts.

2. Institute Capital Improvements Programming to plan for the financing and construction of community facilities and services throughout the County.

3. Utilize conditional zoning provisions to negotiate proffers for adequate community facilities and services as part of the development review and approval process.

4. Require calculations of proposed development fiscal impacts for community facilities and services to be used as the basis for negotiating proffers. This will ensure that new development pays its "fair share" for community facility and service improvements necessitated through additional generated demand.

5. Develop Adequate Public Facilities Standards which establish minimum requirements for various community facilities and services. As part of the development review and approval process, proposed projects should be measured against these minimum standards. Only development which generates demands which fall within these minimum standards should be approved. These standards should also serve as the basis for evaluating fiscal impacts.

6. Establish Special Taxing Districts to provide revenues for certain specific community facility and service needs for exclusively defined areas.

CHAPTER 7: HOUSING AND COMMUNITY DEVELOPMENT

1. Formulate zoning provisions which allow for a variety of housing types in all affordability ranges.

2. Use available Federal and State housing programs to provide affordable housing for County residents.

3. Develop and institue provisions for density bonuses in return for construction of affordable housing.

4. Redefine and improve zoning provisions for home occupations.

5. Improve zoning and subdivision provisions to control the quality of mobile home parks and subdivisions.

6. Incorporate measures of technical and financial assistance to get indoor plumbing for all existing low and moderate income residents.

7. Promote the Residential Shoreline Sanitation Program to correct failing septic systems.

8. Formulate zoning provisions to allow for development of residential apartments in commercial buildings within Activity Centers and Community Centers.

9. Adopte and enforce a Property Maintenance Code to remove or correct substandard housing conditions.

10. Promote self-help efforts and volunteer groups to renovate and rehabilitate existing substandard housing throughout the County.

11. Establish provisions to relax design and construction standards to allow for the development of more affordable housing. Relaxed standards should not jeopardize safe and sanitary conditions for housing.

12. Establish more efficient County development review and approval procedures in order to expedite approvals and reduce the development costs associated with development regulation, thereby directly contributing to housing affordability.

13. Establish a flexible Housing Trust Fund for financing of affordable housing. Sources of funding should come from cash contributions from development proffers, donations from major County employers, County government contributions, and real estate transfer tax proceeds. Housing Trust Funds could be used for interest rate buy-downs, financing assistance for construction of affordable rental housing, second trust financing, land cost buy-downs, water and sewer tap fee reductions, rent supplements, seed money for housing self-help groups, etc.

14. Encourage the development and financial community to participate in State and Federal affordable housing programs.

CHAPTER 8: PARKS, RECREATION, AND OPEN SPACE

1. Provide a periodic inventory and evaluation of existing recreational programs and facilities.

2. Distribute future park and recreation facilities to areas where demand is highest.

3. Develop trails and greenways to connect park and recreation areas.

4. Acquire lands or easements for parks, open space, and recreation purposes.

5. Improve public access to waterways through acquisition, easement and dedication.

6. Establish parks, recreation, and open space areas through development exactions or proffers and dedications, or payments-in-lieu of dedication.

7. Seek Federal and State assistance to acquire and develop community and regional park sites, open space, and recreational facilities.

8. Coordinate public and private organizations which provide recreational opportunities to ensure the efficient provision of facilities and programs.

9. Promote shared use of facilities to maximize utilization and minimize costs of maintaining and/or building duplicate facilities.

10. Establish zoning provisions which preserve open space.

CHAPTER 9: ECONOMIC DEVELOPMENT

1. Potential sites within the County for industrial, commercial and office development should be identified based on the following locational and market criteria: location within designated Development Service Districts, Activity Centers, and to a limited degree, Community Centers; availability of public services (water and sewer); access to major transportation routes; and compatibility with surrounding development.

   The Northeastern Development Service District has generally been identified as appropriate for additional industrial, retail, office and service businesses due to proximity to major residential population centers. The Central Development Service District has generally been identified as appropriate for additional industrial development, particularly warehousing and distribution businesses due to excellent highway and rail proximity. The Southern Development Service District has generally been identified as appropriate for additional industrial development due to the location of existing industries in the Franklin area as well as improved accessibility via improvements to Route 58 and construction of a functional connector roadway. Community centers are generally identified as appropriate for limited commercial activity oriented to servicing the needs of the local community and surrounding rural areas.

2. County development ordinances should be revised to permit industrial, commercial, and office development in designated areas. Performance standards for environmental protection and development appearance should be incorporated into the development ordinances for these types of development.

3. Hampton Roads Sanitation District (HRSD) sewer lines should be extended within the designated Development Service Districts to accommodate economic development. As a priority, HRSD sewer service should first be extended into the Northeast and Central Development Service Districts. When demand is sufficient, it should then be extended into the County's Southern Development Service District.

4. The County should strive to provide a high quality public education system.

5. The County should demonstrate a positive interest in existing and new industries, especially those providing above average wages and an increased variety of job opportunities.

6. Emphasis should be placed on the attraction and growth of businesses that maintain and enhance the County's valued quality of life, including environmental quality.

7. The County should promote an increased linkage among new and expanding businesses by promoting the local purchase of goods and services.

8. The County should formulate public/private partnerships to provide well-serviced and properly located industrial sites that can be developed quickly.

9. Large sites particularly suited for industrial parks should be preserved exclusively for appropriate industrial uses, particularly light and medium manufacturing activities situated in a campus like setting.

10. The County should continue to emphasize and promote tourism as a clean, basic industry. This should be accomplished through coordination with local, regional and State tourism development boards and agencies.

11. The County should assist and encourage all local businesses to identify and penetrate new export markets.

12. Working with local businesses, the County should encourage the continuation of career preparation and employment orientation for area residents through ongoing training programs.

13. The County development ordinances should be updated to permit and encourage planned unit development concepts which promote a compatible mix of office, commercial, industrial, and residential uses.

14. Important aspects of the County's quality of life, such as public parks, quality secondary education, quality residential neighborhoods, environmental quality, and agriculture and open spaces, should be preserved and protected.

15. The Board of Supervisors, Planning Commission, Board of Zoning Appeals, Office of Community Development, Office of Economic Development, the school board, industrial development authority, parks and recreation authority, and other County boards and agencies should work closely together to coordinate policies and activities relating to economic development. Better coordination and cooperation should increase efficiency and minimize potential policy conflicts.

16. The County should continue to work with the local Chamber of Commerce in a cooperative spirit in its efforts to attract new industry to Isle of Wight.

17. Recruitment efforts should be targeted to growth industries which will become major exporters. Warehousing and distribution businesses have been identified as activities that the County should try to attract.

18. Recruitment efforts should also be focused on industries and businesses which can provide needed supplies to existing businesses and thus replace exports.

19. The County Office of Economic Development should continue to keep its marketing materials and information current so that businesses interested in the County can be supplied with up-to-date information for decision-making purposes.

20. The County should focus on recruiting businesses and industries which compliment the strengths of the local economic base and also provide diversity to the local economy.

21. The County should assist local businesses to locate new export markets.

22. The County should encourage existing businesses to develop new products to reduce imports. The County should support the research and development programs of local businesses.

23. Isle of Wight should provide existing businesses with opportunities to expand, using available incentives for financing, provision of land and utilities, and other factors such as tax abatement and tax increment financing.

24. The County should encourage the formation of a Coordinating Committee to identify and promote the various small and new business programs available in Isle of Wight County, including Small Business Administration programs and loans.

25. The County should coordinate public/private partnerships to establish incubator facilities for new and small businesses. This would help to reduce the need for start-up capital and expensive overhead costs which often prohibit many entrepreneurs.

26. The County should help develop programs to assist small businesses with marketing of products and services. Roundtable seminars and conferences would provide small business entrepreneurs an opportunity to meet to discuss common problems and share solutions.

27. The County should assist local entrepreneurs to locate and acquire financing to start new businesses. Programs to match local entrepreneurs to venture capital sources and low interest loan programs should be instituted.

28. The County should work with the local finance and banking community to increase the availability of seed and start-up capital for new and small businesses.

29. The Office of Economic Development should work to provide small and new businesses with the necessary management and marketing guidance to facilitate success.

CHAPTER 10: HISTORIC AND CULTURAL PRESERVATION

1. Develop and maintain a comprehensive listing of historic properties and sites in the County.

2. Promote the adaptive reuse of historic structures as a method of preservation.

3. Evaluate the creation of local historic district zoning for various historic properties throughout the County.

4. Support State and Federal historic preservation programs such as the National Register of Historic Places.

CHAPTER 11: DESIGN

1. Develop zoning provisions to encourage cluster development and open space preservation in rural areas of the County. These zoning provisions should also require that rural subdivisions be setback and screened from roadway view in order to preserve visual rural character.

2. Establish zoning provisions which allow for limited mixed-use development in existing rural Community Centers, and permit the future development of additional Community Centers.

3. Establish design guidelines for development within Community Centers which protects and enhances existing village character.

4. Establish development and design guidelines for future development along designated key highway corridors,

5. Establish Zoning provisions which discourage strip commercial development and promote planned commercial development nodes.

6. Designate scenic routes throughout the County where development and design standards can be applied to protect important natural views and vistas.

7. Incorporate development appearance performance standards into the zoning regulations for all future development in the County, excluding single-family homes and farm buildings.

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