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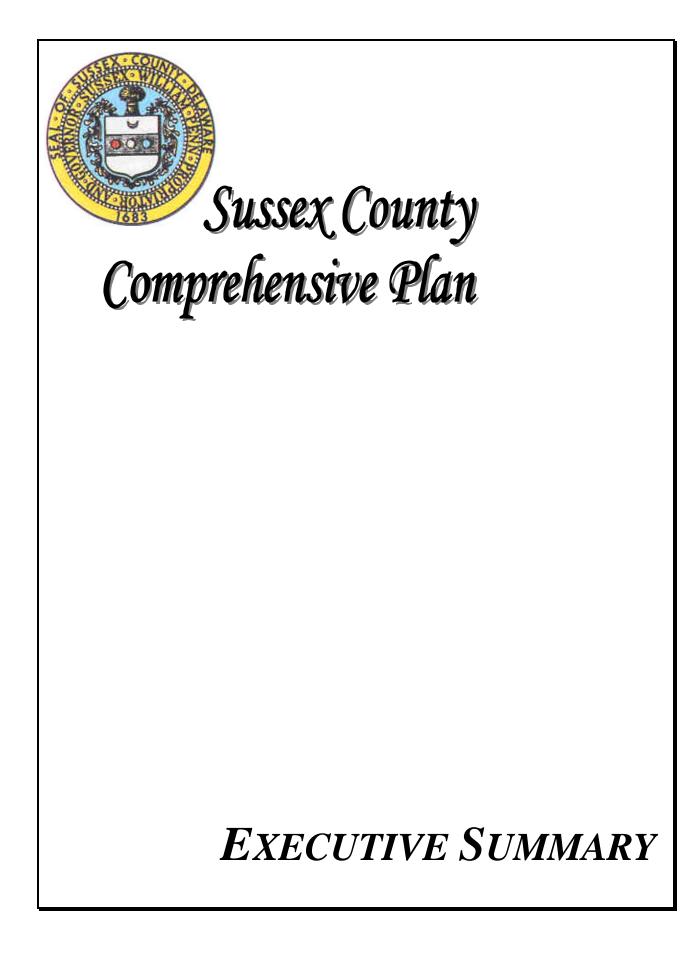
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# **EXECUTIVE SUMMARY**

#### Introduction

The last Comprehensive Plan for Sussex County was adopted on October 21, 1997 and, in accordance with State law, the plan must be updated every five years.

In the fall of 2001, Sussex County began the process of updating the Comprehensive Plan by holding a series of public information meetings. The County Council and the Planning Commission held a joint meeting to determine issues that should be examined in updating the plan. Following this meeting, separate meetings were held in each councilmanic district with the incorporated municipalities and the public. The municipalities provided the County with their proposed Town Center District, Development Districts and Limits of Annexation. Meetings were also held with State agencies including the Department of Natural Resources and Environmental Control (DNREC), Delaware Department of Transportation, (DELDOT), Delaware State Housing Authority (DSHA) and the Department of Agriculture. Following the initial input meetings, a list of critical issues was developed and presented to a joint meeting of the County Council and Planning Commission. A series of meetings was held again in each councilmanic district for additional input on the critical issues. The County Council and the Planning Commission held a second joint meeting to consider additional comments from the public and State agencies. Following this meeting, a draft of the updated plan was prepared and presented at a Public Hearing conducted by the Planning Commission on August 29, 2002. The Planning Commission considered the public comments on the draft plan and presented their recommended changes to the County Council.

A Public Hearing was held by the County Council on October 1, 2002 and a final draft was prepared. The Comprehensive Plan must be approved by the Livable Delaware Advisory Committee and certified by the Governor prior to its adoption. Several actions have been taken by the State since the adoption of the 1997 plan that had a significant impact on the updated plan. On December 23, 1999, the Cabinet Committee on State Planning Issues approved a set of management strategies "designed to improve Delaware's Quality of Life". The goal of the strategies is to direct new growth toward existing communities and avoid sprawl and loss of farmland. The current County plan embraces these objectives. The map included with the management strategies divided the existing Development District shown on the current Sussex County Plan into "Developing Areas" and "Secondary Developing Areas". It is the intent of the State to encourage growth in the "Developing" Areas" by the judicious use of State spending for infrastructure, education and other public Secondary Developing Areas are facilities. considered to be appropriate for longer-range development. It can be expected that any monies invested by the State in the Secondary Developing Areas will be limited and will depend on the phasing and timing of the development. The Strategies for State Policies and Spending Map has been included as Figure 8 for comparison with this Plan.

The management strategy map also recommends that the area around the Inland Bays be considered as a special "Environmentally Sensitive Developing Area" with its own unique set of development criteria. On March 22, 2001, Governor Ruth Ann Minner unveiled her strategy for a "Livable Delaware". The strategy is a set of initiatives to prevent sprawl and "focus development in and around existing communities". The goals of this program are to preserve farmland and open space and discourage development in rural areas which have a higher cost to the state to provide services.

Another action taken by the State was the adoption of House Bill 255 on July 13, 2001. This legislation required the County to amend its official zoning map to comply with the updated Comprehensive Plan within eighteen months of the adoption of the Comprehensive Plan. Requests for rezoning that do not comply with the Comprehensive Plan cannot be approved without amending the Comprehensive Plan. An amendment will require approval by the State. The second part of this legislation deals with annexation of land by incorporated municipalities and how the County will be affected by the This legislation provides for a annexation. process for State review to ensure compatibility between the County and the municipality and a method for resolving disputes.

Lastly, the "Long-Range Transportation Plan Update" was prepared as a joint effort between Sussex County and the Delaware Department of Transportation. This plan identifies many traffic problem areas in Sussex County, most of which are well known to the residents of the County. The updated Comprehensive Plan will include the results of the Transportation Plan and the strategies to deal with future transportation needs in the County.

The County also took an important step in planning for future growth by adopting an ordinance to provide funds for "protecting, improving, enhancing and preserving the natural resources and open space in Sussex County". The ordinance authorized the County Council to pledge one million dollars to the Sussex County Land Foundation for the current fiscal year and ten percent of its net increase in the General Fund balance in each subsequent fiscal year. These funds will be combined with other contributions from public or private sources. County funds can only be used for land acquisition, purchasing development rights, or stewardship of the purchased land.

During the last decade, the County has experienced an increased rate of growth. The U.S. Census for 2000 indicates a permanent population of 156,638 people, an increase of 43,409 or 38% since the 1990 Census. These numbers do not include the seasonal population or day visitors to the County. The 2000 census shows 24,906 seasonal dwelling units, which could increase the summer population to 218,903, not including day visitors. In addition, County records show building permits for new dwelling units averaged nearly 2,500 per year during the period from 1990 to 2001. The growth in both seasonal and permanent population, plus commercial development, and the needs of the tourist industry has increased traffic congestion and the threat of air pollution and eutrophication of the waterways. The loss of viable farmland is also a concern of the County. The Comprehensive Plan addresses the location and density of new development to alleviate these conditions.

In summary, the most important considerations in updating the Comprehensive Plan were determined to be as follows:

- Determination of the appropriate areas to be considered as "Developing Areas"
- Determination of areas proposed for annexation by municipalities
- Considerations for density and use in Town Centers and Developing Areas
- Special considerations appropriate for "Environmentally Sensitive Developing Areas"
- Short and long term transportation improvements

- Agricultural Preservation
- Environmental Considerations
- Achieving compatibility between the Comprehensive Plan and the Zoning Map
- Provisions for economic development
- Consideration of housing needs

Meeting the need for infrastructure improvements caused by the growth, preserving agricultural land, and protecting the environment are the challenges faced by Sussex County during the next decade.

#### **DEMOGRAPHICS AND TRENDS**

Population growth in Sussex County increased significantly during the 1990 decade as compared to previous growth rates and the trend has continued since the 2000 census was completed. During the period from 1980 to 1990 the population increase was 15,225 people or sixteen percent, however, the population increased by 43,409 or thirty-eight percent during the period from 1990 to the year 2000. Table 1 shows the historical growth from census data and the projected growth by the Delaware Population Consortium.

TABLE 1		
	SUSSEX COUNTY	
P	OPULATION GROW	ГН
	POPULATION	CHANGE
1950	61,336	
1960	73,195	9%
1970	80,356	10%
1980	98,004	22%
1990	113,229	16%
2000	156,638	38%
2010*	187,519	19%
2020*	218,547	17%
2030*	248,638	13%

Table 2 shows population growth and households from the US 2000 Census.

#### TABLE 2

FROM CENSUS				
	1990	2000	CHANGE	
Population	113,229	156,638	43,409	
White	92,395	125,857	33,462	
Black	18,995	23,319	4,324	
Others	1,839	7,462	5,623	
Hispanic	1,476	6,915	5,439	
Total Units	74,253	93,070	18,817	
Occupied	43,681	62,577	18,896	
Owner	34,325	50,484	16,159	
Renter	9,358	12,093	2,735	
Vacant	30,572	30,493	-79	
Seasonal	18,631	24,906	6,275	

Table 3 shows the population increase by race.

TABLE 3				
	POPULATI	on By R	ACE	
	FROM THE	U.S. CE	NSUS	
	1990	%	2000	%
White	92,288	81.5	127,408	81.35
Black	18,961	16.7	24,422	15.6
Others	1,980	1.8	4,808	3.1
Total	113,229	100	156,638	100
Hispanic or Latino of any race	1,221	1.1	6,915	4.4

\*From Population Consortium

The percentage of the white population did not change in the 1990 decade, however, the percentage of the black population declined slightly and the percentage of Hispanic or Latino population increased from 1.1 percent to 4.4 percent.

Table 4 shows Sussex County's population by age compared to Kent County and New Castle County.

#### TABLE 4

PERCENT OF TOTAL POPULATION BY AGE				
	YEAR 20	000		
	NEW			
	CASTLE	Kent	SUSSEX	
Total				
Population	500,265	126,697	156,638	
Under				
18 years	24.9	27.3	22.5	
18-24 years	10.3	10.1	7.0	
25-44 years	31.5	29.8	26.3	
45-64 years	21.7	21.2	25.6	
65 years				
and older	11.6	11.7	18.5	
Median Age	35	34.4	41.1	

Due to the large number of retirees moving into Sussex County, both median age and percentage of residents over age 65 are significantly higher than the other two counties.

Table 5 shows the density of population and housing units as compared to Kent County and New Castle County.

TABLE 5			
Рори	LATION AN	D HOUSIN	G
DWELLIN	G UNITS PE	R SQUARE	MILE
	NEW		
	CASTLE	Kent	SUSSEX
Population	500,265	126,697	156,638
Housing			
Units	199,521	50,481	93,070
Total Area			
(Sq. Miles)	493.51	800.12	1,195.65
Water	67.24	210.40	258.07
Land	426.27	589.72	937.58
Population			
per sq. mile	1,173.6	214.8	167.1
Housing Units			
(sq. mi.)	468.1	85.6	99.3

Considering Sussex County as a whole, it is not densely populated compared to New Castle County even including seasonal population (99.3 housing units per square mile vs. 468.1 housing units per square mile). However, the seasonal population, (as determined by the number of housing units) is concentrated in the coastal communities.

#### TABLE 6

TOWN DENSITIES		
	DWELLING UNITS	
Town	PER ACRE	
Dewey Beach	6.2	
Rehoboth Beach	4.2	
South Bethany	3.4	
Fenwick Island	3.0	
Georgetown	0.60	
Dagsboro *	0.31	
Laurel **	1.47	

\*lowest non-coastal town

\*\*highest non-coastal town

According to the projections released by the Delaware Population Consortium in October 2002, the population of Sussex County is estimated to increase as shown in Table 7.

TABLE 7

		AVERAGE
YEAR	POPULATION	YEARLY INCREASE
2000	157,275	
2010	187,519	1.92
2020	219,547	1.71
2030	248,638	1.33

The total increase in population is attributed to in migration. Households are projected to increase as shown in Table 8.

#### TABLE 8

YEAR       HOUSEHOLDS       YEARLY INCREASE         2000       62,577         2010       78,060       2.47%         2020       91,983       1.78%			AVERAGE
2010 78,060 2.47%	YEAR	HOUSEHOLDS	YEARLY INCREASE
	2000	62,577	
2020 91,983 1.78%	2010	78,060	2.47%
	2020	91,983	1.78%
2030 104,350 1.34%	2030	104,350	1.34%

The average persons per household is expected to decline from 2.51 in the year 2000 to 2.38 in the year 2030. Total households are projected to increase by 41,773 over the same thirty-year period. In addition to the permanent population, there is a large seasonal population that requires housing.

An analysis of building permits shows that growth continued through 2001.

TABLE	29			
	COUNT	Y BUILDING	PERMITS	
		Manu-		
	SINGLE	FACTURED	MULTI-	
YEAR	FAMILY	HOUSING	FAMILY	TOTAL
1990	1,073	834	337	2,244
1991	967	719	133	1,819
1992	1,046	851	240	2,137
1993	1,088	802	333	2,223
1994	1,122	819	398	2,339
1995	1,055	889	269	2,213
1996	1,290	714	477	2,481
1997	1,357	769	419	2,545
1998	1,602	805	495	2,902
1999	1,822	732	617	3,171
2000	1,584	620	603	2,807
2001	1,800	633	664	3,097
Total	15,806	918	*4,985	29,978

\* Building permits for multi-family units are issued by structures. The number of individual units was estimated using the estimated construction value from County records.

The number of building permits over this twelve-year period averaged 2,498 annually. This number is substantially larger than the number of annual household increase (1,588) indicating a large number of seasonal units being constructed.

An indication of where growth is occurring can be derived from building permits issued in the various assessment districts of the county. Table 10 shows the distribution of these permits, which includes permits issued by municipalities but does not include permits for multi-family units.

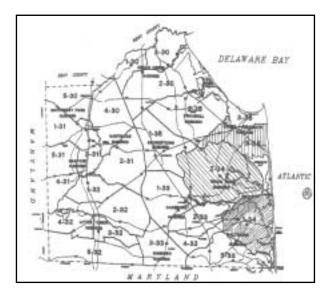
#### TABLE 9A

LAND USE CHANGES			
			INCREASE/
	1992	1997	DECREASE
USE	%	%	%
Residential/	7.41	9.07	+1.66
Urban			
Commercial/	0.89	0.97	+0.08
Industrial			
Transportation,	0.65	0.74	+0.09
Government/			
Utilities			
Agricultural	44.62	43.56	-1.06
Forest	21.37	19.91	-1.46
Water	4.84	4.92	+0.08
Wetlands	18.36	18.12	-0.24
Other	1.87	2.70	+0.83

#### TABLE 10

-					
BUILDING PERMITS BY ASSESSMENT DISTRICT					
JANUARY 1, 1998 THRU OCTOBER 14, 2002					
(INCLUDING MUNICIPALITIES)					
	MANU-				
	DETACHED	FACTURED			
DISTRICT	DWELLING	HOUSING	TOTAL		
130	119	26	145		
131	29	62	91		
132	81	311	392		
133	269	174	443		
134	2,141	254	2,395		
135	231	124	355		
230	214	201	415		
231	128	164	292		
232	164	137	301		
233	142	102	244		
234	1,039	1,288	2,327		
235	482	177	659		
330	241	21	262		
331	143	19	162		
332	18	60	78		
338	46	41	87		
334	1,715	323	2,038		
335	402	12	414		

Fifty-two percent of the permits were issued in three of the assessment districts. 1-34 (west of Bethany Beach) 2-34 (Long Neck) and 3-34 (west of Rehoboth Beach). These three districts comprise approximately eighteen percent of the total acreage in the County. The western portion of the County surrounding US Route 13 accounted for approximately eighteen percent of the building permits.



#### THE PLAN AND IMPLEMENTATION

Sussex County is growing and Sussex County is changing. The advantages of having a moderate climate, friendly small towns, ocean beaches, inland bays, and open space combined with a low tax rate continues to attract retirees and seasonal residents. During the period from 1990 to 2000, the permanent population increased by percent. Although thirty-eight the projections from the Delaware Population Consortium show the rate of growth decreasing in the future, the number of building permits being issued by the county and the number of projects going through the approval process indicates that the current growth rate is continuing. As the generation baby boomer approaches retirement age, this inward migration is likely to continue. The amount of land required for development of new housing depends on where it occurs, zoning restrictions, availability of central water and sewer, environmental considerations, and ultimately upon the type of dwelling units constructed. Based on the data contained in the report "Strategies for State Policies and Spending", the amount of land in the County used for residential/urban, commercial industrial, transportation, government and utility increased by 11,513 acres in the period from 1992 to 1997 and as of that date comprised 10.78 percent of the total acreage in the County. Over the same time period the County issued building permits for 11,393 new dwelling units indicating an average change in land use of one acre per dwelling unit.

The Delaware Population Consortium projects an increase of 41,773 households during the period from 2000 to 2030. This does not include seasonal dwelling units.

If this rate of land consumption continues, the amount of land devoted to residential, commercial, industrial and transportation uses could comprise 17 percent of the County by the year 2030.

Future trends in land use will be impacted by several factors including: The Mid-Atlantic and State of Delaware programs for economic development; private entrepreneur development markets; agricultural product farming markets: and methods and technology; and, environmental protection and preservation activities. The amount of land required will also be impacted by the goal of building near existing municipalities and the desire for higher density to preserve farm land and open space. The County should be prepared to conserve land by building at higher densities in appropriate areas and by allowing cluster development.

Most of the growth (52%) has occurred around the inland bays and coastal communities, however, plans for two large developments, one at Milton and one at Bridgeville, have recently been announced. As land prices near the coastal area become very high, development will spread to the western part of the County. The Land Use Plan accommodates this growth by creating development areas around the municipalities where public infrastructure exists. The County must adopt ordinances for overlay zones, which will delineate Town Centers and Developing Areas, and requirements for densities and infrastructure.

The inland bays provide a great amenity for the residents and visitors to Sussex County. Preservation and improvement of the water quality of the bays is essential to the continued prosperity of the County.

To accomplish this, the County has created a "Environmentally special Sensitive Developing Area". The vision for this area is to adopt an overlay ordinance, which will give special consideration to environmental issues for proposed developments. The intent is to promote quality development by clustering dwelling units and providing a high percentage of open space for buffers and habitat protection. Mixed-use and village style projects should be welcomed and innovative planning and design are encouraged. As Randall Arendt states in his book. "Rural by Design", "resulting provision of open space is far more important to their community in the long run than the additional public costs associated with a marginal increase in the numbers of new residents living in the subdivision". The County has received a matching grant from the Department of Natural Resources and Environmental Control for a detailed study of the Environmentally Sensitive Developing Area. This study will be used in developing the overlay ordinance for this area.

The demographics and trends show the effect of the inward migration on the age of the population in the County. The percentage of residents over the age of 65 is 18.5 compared to 11.6 for New Castle and 11.7 for Kent County. County Additionally, the median age in Sussex County is 41.1 compared to 35.0 for New Castle County and 34.4 for Kent County. The significance of this is that older residents have some special needs. Availability of medical services is very important to them, as are other public services such as libraries and public Village Centers that can transportation. provide convenient access to these services and lessen transportation distances should be encouraged and permitted in the developing areas. The age distribution also shows that

the 18 to 24 age group in Sussex County is 7 percent compared to 10.3 percent for New Castle County and 10.1 percent for Kent County indicating that additional employment opportunities in the County are important to keep young residents from leaving. Data from the U.S. 2000 Census shows that 3,403 households in Sussex County are below the poverty level as determined by total household income. Furthermore, a report issued by the "Sussex County Housing Group" emphasizes that the lack of affordable housing in the County is a serious problem. Many of the lower income families are living in the incorporated municipalities.

The Comprehensive Plan and the Zoning Ordinance should allow affordable housing in appropriate locations.

The growth rate and seasonal traffic have put an increasing strain on the County's infrastructure. State Route 1 between Route 24 and Collins Avenue operates at a level of "F" service during the peak season characterized by extremely low speeds, congestion and long heavy delays. Furthermore, the link on route 26 from Route 17 to SR 1 operates at a level of service "E during the peak season" which is characterized by long delays and heavy congestion. A new north/south highway along the U.S. 113 corridor is in the planning stage to help relieve this congestion. In addition, there is a "State Route 1 Land Use/Transportation Study "underway as a joint effort of Sussex County and DelDOT to improve traffic on State Route 1. The County should continue to be an active participant in this study.

DNREC has initiated a Source Water Assessment Study for the public water supply wells in Sussex County. This study delineates source water areas, vulnerability to contaminants, identification of existing and potential sources of contamination; and determination of the susceptibility of the source waters area to contamination. The County should closely monitor this study and take appropriate action to prevent contamination of the public water supplies.

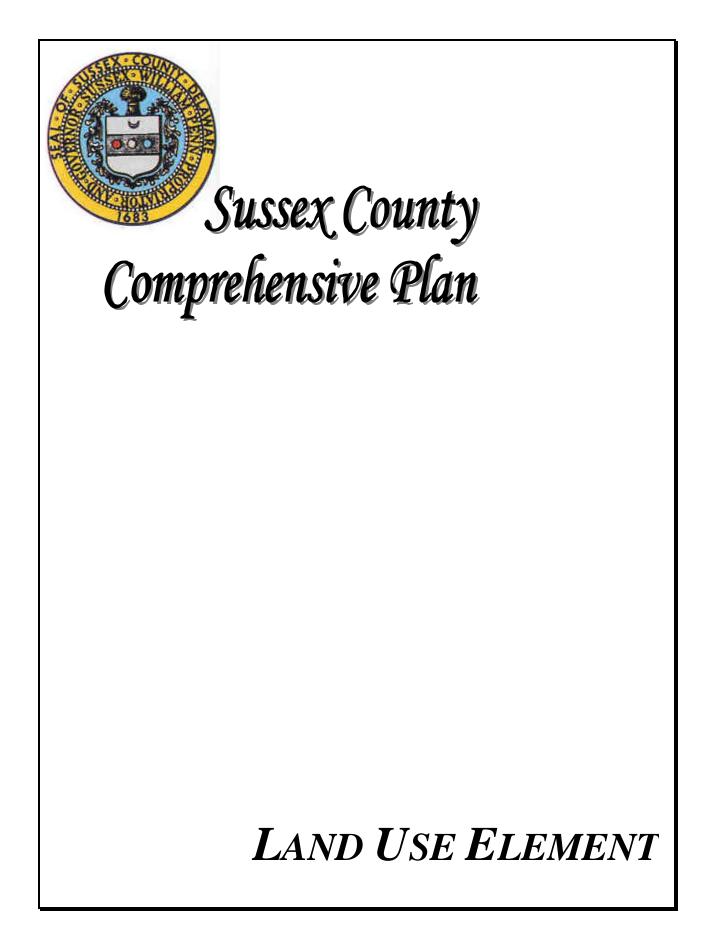
The most important recommendations in the Comprehensive Plan are as follows:

- Creation of a Environmentally Sensitive Developing Area
- Allow clustering and minimum lot size of 7,500 square feet
- Reduce size of Developing Areas
- Improve quality of development by revising community design standards
- Allow clustering to one-half acre lot size in AR-1 areas
- Allow bio-tech campuses and agricultural related businesses in the Low Density Area
- Limit density of residential uses in C-1 Zone to four dwelling units per acre for newly rezoned districts.
- Evaluate the need to increase the buffer zone requirements for tidal wetlands and the need to require a buffer zone for non-tidal wetlands

The Comprehensive Plan recommends major changes to the existing zoning regulations and subdivision regulations to provide for development and the preservation of the agricultural land, however the pressure for development, the rising value of land, and the property rights of the land owners will make the viability of the agriculture difficult.

To implement the plan, the zoning ordinance will have to be amended as follows:

- Revise AR-1 Zone to allow clustering and bio-tech campuses and agriculturally related businesses
- Revise MR and GR Zones to allow clustering
- Create overlay zones for Town Centers, Developing Areas and the Environmentally Sensitive Developing Area
- Revise C-1 Zone to reduce residential density and create a new commercial zone for large buildings
- Adopt open space requirements
- Adopt community design standards
- Extend Corridor Overlay Zone to U.S. 13 and 113
- Adopt Corridor Overlay Zone for east/west arterials
- Require TAC review for RPC developments
- Adopt TDR Sending Program



# LAND USE ELEMENT

#### GOAL

#### **DIRECT GROWTH WITH THE PROVISION OF PUBLIC INFRASTRUCTURE AND SERVICES, AND BALANCE GROWTH WITH THE NATURAL ENVIRONMENT'S ABILITY TO ACCEPT IT**

Sussex County encompasses 628,639 acres. The most intensely developed areas are along the Atlantic Coast, the Inland Bays and the Nanticoke River. Other development is occurring around the municipalities and along major roadways, however, there is increasing development in the rural areas of the County. Without adequate safeguards, the features that maintain Sussex County's quality of life and attract new residents and businesses will suffer. Likewise, loss of farmland through scattered development impacts the County's economy, environment and transportation network.

The Atlantic coastline, Inland Bays, and towns along US 13 and US 113 have high concentrations of population. They also highest distribution provide the of employment opportunities. This fact indicates that these areas will be the primary locations of future development. Recently, developments large-scale have been proposed in the Bridgeville and Milton areas. As developable land near the coast and inland bays becomes scarce and more expensive, development is expected to spread to western Sussex County.

Much of the area along U.S. Routes 13 and 113 and State Route 1 has been zoned commercial for years. The proliferation of retail development along State Route 1 has caused major traffic problems during the tourist season in the area from Five Points to south of Dewey Beach. U.S. Route 13 is also experiencing some traffic problems. Cooperation between the municipalities, DelDOT, and the County will be necessary to improve traffic flow.

Sussex County includes twenty-five incorporated municipalities:

Bethany Beach	Bethel
Blades	Bridgeville
Dagsboro	Delmar
Dewey Beach	Ellendale
Fenwick Island	Frankford
Georgetown	Greenwood
Henlopen Acres	Laurel
Lewes	Milford
Millsboro	Millville
Milton	Ocean View
Rehoboth Beach	Seaford
Selbyville	Slaughter Beach
South Bethany	

With the exception of Ellendale, the municipalities enforce their own zoning regulations within their boundaries.

The Comprehensive Plan emphasizes that existing municipalities and adjacent areas offer the opportunities greatest for development with the least impact on Sussex County's environment. healthful living standards. agricultural industry and transportation network. Centralization of public infrastructure and services is the pattern desired growth for future development within Sussex County. Because the municipalities provide the infrastructure and public services required for development, they should be considered development the primary zones for

immediate expansion. Growth Areas served with central wastewater systems by the County will provide additional areas for future growth. Many of the municipalities have excess wastewater treatment capacity, which can be used to serve contiguous areas. This expansion is normally conducted through annexing the area to be served. Cooperation between the County and the municipalities in addressing annexation issues will help to achieve the goals of the Comprehensive Plan.

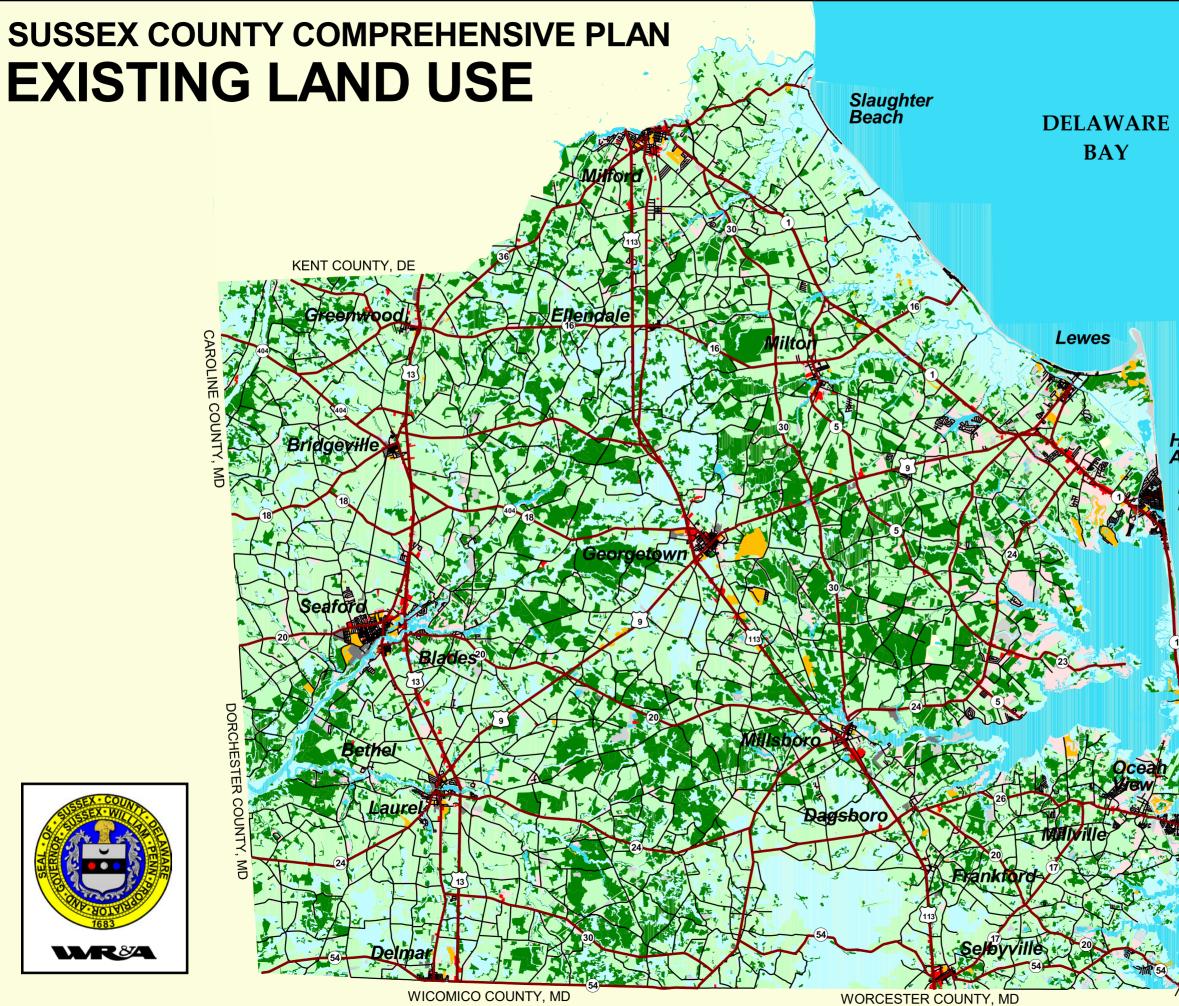
The Comprehensive Plan divides the County into Growth Areas, and a Low Density Area. The Low Density Area, comprising most of the County, is the agricultural/residential area located generally in the more rural areas of the County. Although this area is intended primarily for agricultural use, low density residential development is permitted. The purpose of the Growth Areas is to accommodate the increased demand for housing units from inward migration and the need for low and moderate income housing.

Within these Growth Areas, there are Town Centers, Developing Areas, and a special Environmentally Sensitive Developing Area. In addition to residential areas, areas currently zoned for commercial or residential use are also designated on the map. It is the intent of the Land Use Plan to retain the existing zoning districts as shown on the Official Zoning Map for Sussex County as of the adoption of the Comprehensive Plan. The purpose of the Land Use Plan is to direct growth in a manner that is cost efficient for public and private investments. and to protect agricultural land and critical natural resources. The Land Use Plan will serve as the basis for Sussex County to update its zoning and subdivision regulations; and plan for future public infrastructure and services.

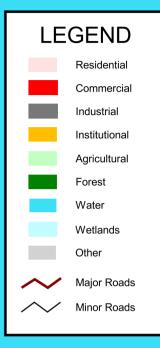
It is anticipated that ordinances creating overlay zones for Town Centers, Developing Areas and the Environmentally Sensitive Developing Area will be adopted by the County Council. Inclusion in a Developing Area does not automatically permit a property to be rezoned or developed. Any proposed development must meet the requirements of Ordinance No. 1152 adopted July 8, 1997.

The intent of the Plan is to encourage higher residential densities in the Town Centers, with densities reducing as development moves further away from the Town Centers. Areas designated as Growth Areas include Municipalities, Town Centers, Developing Areas and the Environmentally Sensitive Developing Area.

The following pages describe the plan's districts. Several of the districts described are shown on the Future Land Use Map, Figure 2. These include the Municipalities, Town Developing Centers, Area, Environmentally Sensitive Developing Area, and the Low Density Area. The location of those not depicted on the map are explained in the text. Following the adoption of the Comprehensive Plan, overlay zones will be adopted for the Town Centers, Developing Area. and Environmentally Sensitive The other districts Developing Area. described either do not require an overlay zone or would need to be studied prior to developing an overlay zone.



# **FIGURE 1**



# Henlopen Acres

Rehoboth Beach

> Dewey Beach

> > ATLANTIC OCEAN

Bethany Beach







SOURCES: Delaware Department of Transportation Delaware Office of State Planning Coordination Delaware Department of Natural Resources and Environmental Control United States Geological Survey

# **GROWTH AREAS**

#### Municipality Purpose

A major emphasis of the Comprehensive Plan is to direct development toward the municipalities in accordance with their ability to accommodate growth and their desire to annex proposed new or existing development. Each Municipality has its own character and it will be important to respect their heritage when planning for future development. The County and State recognize that planning and zoning decisions around the municipalities will have impacts on the economy and the quality of life within the municipalities. Development within the municipalities will be in accordance with their own zoning and subdivision regulations.

To further intergovernmental coordination within Sussex County, areas surrounding the County's municipalities have been defined for the purpose of establishing an Intergovernmental Coordination Zone of mutual planning and development concern. This boundary will be utilized for the intergovernmental coordination of future planning, zoning, subdivision and related land development decisions, including Municipal annexation.

# TOWN CENTERS

### Purpose

The purpose of the Town Center is to concentrate growth around existing municipalities while protecting their character by planning compatible development. require This will intergovernmental cooperation and coordination between the County and the municipalities concerning land use planning and annexation, review of development proposals, extension of water and wastewater systems, and provision of a multi-modal transportation network.

# Location

The Town Centers are located in the areas surrounding Greenwood, Bridgeville, Seaford, Blades, Laurel, Delmar, Milford, Georgetown, Millsboro and Selbyville. Town Centers are considered primary potential annexation areas.

# **Guidelines for Infrastructure**

The Town Centers are adjacent to municipalities where public water and wastewater systems are available. Future development should provide for the extension of these services, where feasible. Community wastewater systems can be used, when they are permitted by DNREC, until public systems are extended. New internal streets in the Town Centers should be planned as extensions of existing streets to allow the area to develop as an integral part of the Municipality.

# **Guidelines for Housing Types**

Housing types should reflect the character of the adjacent Municipality. Housing types appropriate in the Town Center include single-family detached homes, townhouses, apartments, condominiums and manufactured homes where permitted by ordinance.

# **Guidelines for Density**

Medium to high density is encouraged in the Town Center areas; however, the density should not exceed the maximum density allowed by the adjacent municipality. Typical densities would range from four dwelling units per acre for single family detached housing units to twelve dwelling units per acre for multifamily housing in areas where a central water and sewer system is provided. Onwastewater systems should site be discouraged in these areas. When no alternative exists, single-family detached units should be clustered on one-half acre lots, where permitted by DNREC, and a dry wastewater collection system installed. These areas could serve as receiving areas for the transfer of development rights if an

ordinance is adopted and the municipality agrees to annex the area.

## **Guidelines for Non-Residential Uses**

Commercial uses are encouraged in the Town Centers that will serve the daily needs of residents, visitors and travelers. Typical uses would include retail stores professional offices and that are compatible with the size and character of the adjacent Municipality. Industrial uses would also be appropriate if they are consistent with the character of similar experienced uses in the adjacent Municipality.

# **DEVELOPING AREAS**

### Purpose

The purpose of designating Developing Areas is to concentrate development in areas where public water and wastewater systems are available or planned and where past trends indicate that growth will occur. These areas are partially developed contiguous to the existing and municipalities. The Developing Areas will produce a mixed-use growth pattern public private supported bv and investments to provide a variety of development and housing economic By encouraging higher opportunities. residential densities, and commercial and industrial uses in these Developing Areas, the pressure for development in the Low Density Areas will be reduced.

# Location

The Developing Areas are around Greenwood, Bridgeville, Seaford, Blades, Laurel, Delmar, Milford, Milton, Georgetown, Dagsboro, Frankford, Millsboro and Selbyville.

# **Guidelines for Infrastructure**

Portions of the western Developing Areas can be served with public wastewater systems by extending services from the existing municipalities. A wastewater system will be required to serve the remaining areas where high-density development occurs or where development impacts sensitive environments. The western Developing Areas are well served by U.S. Route 13, however poorly planned development will severely reduce its traffic capacity and create safety hazards. A corridor preservation study is underway to alleviate current problems. Railroad access is available through the use of the existing rail line that parallels U.S. Route 13

# **Guidelines for Housing Types**

Housing types appropriate in the Developing Areas include single-family detached homes, townhouses, apartments, condominiums and manufactured housing where permitted by ordinance.

# **Guidelines for Density**

Developing Areas are suitable for medium density and mixed-use developments. The base density for projects with central wastewater systems should be four dwellings per acre based on the net acreage. Increases in density could be allowed in unique circumstances where the proposed development is adjacent to existing high-density areas. Clustering of lots to a minimum size of 7,500 square feet should be allowed and open space should be provided as described in the Community Design Element of the Comprehensive Plan. When on-site wastewater systems are permitted, the provisions for density as described in the section entitled "Low Density Area" should apply.

# **Guidelines for Non-Residential Uses**

Commercial uses in the Developing Areas include retail stores, professional offices and recreation. Commercial uses within residential areas, which are influenced by cultural. environmental or mobility concerns. should be limited to neighborhood shopping and businesses that serve the current development. Neighborhood shopping and businesses should be clustered in village scale centers that are integrated with residential areas to create mixed-use communities. Large shopping centers should be located on major arterials, however their access must be designed to limit traffic congestion. Any proposed intensive use must undergo a rigorous environmental study. Heavy industry requiring roadway and rail access can be accommodated in the U.S. Routes 13 and 113 corridor Developing Areas.

#### ENVIRONMENTALLY SENSITIVE DEVELOPING AREA

### Purpose

The purpose of designating the Environmentally Sensitive Developing Area is to recognize that the Inland Bays of Sussex County are a major resource of the County and must be protected from insensitive development of the surrounding area. Environmentally Sensitive Developing Area can be defined as a Developing District with special environmental design and protection requirement. For the past two decades, the attractiveness of the Inland Bays area has made it an ideal location for second home, resort and retirement communities, as well as related commercial uses. Public investment is required in these areas to address ground water pollution from failing septic systems and eutrophication of the Inland Bays from surface water runoff and point source discharges of wastewater. additional development has The also increased traffic congestion and caused roadway system inadequacies. It is expected that future expansion of schools and other public facilities will be necessary to meet the needs of an increasing permanent population. New regulations are required to control the density of development, preserve open space and valuable habitat and to prevent excessive levels of sediments and nutrients in waterways. The Division of Water Resources Watershed Assessment Section of DNREC adopted regulations on December 10, 1998 for Total Maximum Daily Loads (TMDLs). The regulated areas include Indian River, Indian River Bay, and

Rehoboth Bay. These regulations propose significant reductions of nitrogen and phosphorus for the tributaries to the Inland Bays from non-point sources. They also propose a system of elimination of all point sources that are currently discharging into the Indian River, Indian River Bay and Rehoboth Bay. DNREC will implement this regulation by developing a Pollution Control Strategy. Although determining land use practices (e.g. Zoning) is outside the scope of DNREC authority, and the Pollution Control Strategy, the County can assist this effort by adopting policies and zoning regulations that result in the improved control of nutrient runoff and protection of valuable habitat. Any proposed intensive use should be required to provide a rigorous environmental study.

# Location

The Environmentally Sensitive Developing Area comprises approximately 22,000 acres generally extending from Route 24 to Rehoboth Bay and Roads 384 and 369 to Little Assawoman Bay as shown on the Land Use Plan. The area extend to the coast and surrounds the towns of Fenwick Island, South Bethany, Bethany Beach, Millville, Ocean View, Lewes, Rehoboth Beach and Henlopen Acres. Since utilities are generally installed in the roadways forming boundary the of the area. the Environmentally Sensitive Developing Area should extend to the properties fronting on these roads provided that the maximum depth does not exceed 600 feet.

### **Guidelines for Infrastructure**

Extension of the central wastewater systems in this area to serve failing on-site systems and new development will protect the Inland Bays from excessive amounts of nutrients. The South Coastal Regional Wastewater Treatment Facility and the Inland Bays Regional Wastewater Treatment Facility currently provide wastewater treatment for a portion of this area. Seven sewer districts, West Rehoboth, Long Neck, Dewey Beach, Bethany Beach, South Bethany, Fenwick Island, and Holts Landing currently serve the area. Plans are underway to serve Cedar Neck and Oak Orchard and other smaller areas. Where central sewer service is not available, new developments using on-site systems should have a minimum lot size of one-half acre, where permitted by DNREC.

Several privately owned companies provide water service in this area. Expansion of these services plus a potential County water system is desirable.

State Route 1 primarily serves the coastal Developing Area. State Route 1 is already subject to seasonal traffic congestion between Nassau and Dewey Beach. Transportation improvements, which may include mass transit, intersection improvements, additional traffic lanes and controlled access, will be required to accommodate future growth.

### **GUIDELINES FOR HOUSING TYPES**

Housing types approved in the Environmentally Sensitive District include single family detached homes, townhouses, apartments. condominiums and manufactured housing where permitted by Residential ordinance. Planned Communities and Village Style development should be encouraged in this area to provide open space and protect habitat.

#### **GUIDELINES FOR DENSITY**

Both the State and County recognize that the area around the Inland Bays is desirable for appropriate development. However, the Inland Bays are ecologically vulnerable to the impact of insensitive development. Accordingly, the County should enact an ordinance requiring any applicant of a major development, as defined in the ordinance, to provide information and analysis addressing the development's environmental impact, including the treatment of stormwater quality and quantity, TMDL impact,

mitigation of wetland and woodland disturbance, provision of wastewater treatment and water systems and other matters affecting the ecological sensitivity of the site or the Inland Bays. When a central wastewater system is provided, residential density would be permitted up to the maximum allowable density of the underlying zoning district. Clustering of lots in any zoning district to a minimum lot size of 7,500 square feet should be permitted, but should not increase the density permitted in that zoning district. Any increased density by rezoning should only be permitted with proper environmental safeguards. When on-site wastewater systems are used, the provision for density as described in the section "Low Density Area" should apply.

### GUIDELINES FOR NON-RESIDENTIAL USE

Additional commercial uses will be needed the Environmentally Sensitive in Developing Areas. These uses should be limited to neighborhood shopping and businesses to serve the rapidly expanding population. Village scale shopping centers are the preferred location for these services. Industrial uses are regulated by The Delaware Coastal Zone Act. New facilities for heavy industry and bulk transfer are prohibited. The Coastal Zone Act does not regulate commercial. residential, warehousing or distribution activities.

### SPECIAL REQUIREMENTS

Prior to approval of any preliminary plan for a major subdivision or development, a report detailing required public facilities and environmental impacts must be submitted and approved.

### **RURAL COMMUNITY DISTRICT**

# Purpose

The Rural Community District is established for existing unincorporated communities that are commonly known for a distinctive neighborhood character. It addresses the concern about these communities being located in planning areas or zoning districts where they are a non-conforming use or conflict with regulations. district The Rural Community District will maintain and enhance the character of communities through requiring infill development and contiguous boundary growth to occur in a manner, which is sensitive and compatible with each community. Suitably scaled public service centers, and retail shopping and employment opportunities will be encouraged to support a sustainable neighborhood atmosphere. Development proposals will be reviewed and approved if they are determined to be compatible with, and have a positive impact on improving or extending the community's character. The Rural Community District supports the concentration of development in designated growth areas. the preservation of agricultural land and critical natural resources. and the preservation of Sussex County's rural heritage and character. The Rural Community District boundary placement should be guided by a consideration of a convenient distance to the community Additional boundary center. considerations should include the moderate availability of land for expansion, limitations and opportunities created by roads, streams, rivers, and wetlands; and achievement of a compact Examples of Rural Communities form. include Broadkill Beach, Roxana, and Gumboro. The final determination of Rural Community Districts will be made during revisions to the Zoning Ordinance with extensive public input.

### **Guidelines for Infrastructure**

Rural communities will continue to use on-site water and wastewater systems except where there is a threat to public health. Centralized community septic systems are encouraged, and package treatment plants or spray irrigation may be viable alternatives. Rural communities are dispersed throughout the County on arterial, collector and local roads.

# **Guidelines for Housing Types**

Housing types should reflect the character of the community. Generally the most appropriate housing type for rural communities is single-family detached homes.

# **Guidelines for Density**

There is a three-quarter acre minimum lot size for single-family detached homes unless clustered. However, lot sizes compatible with a community's existing development pattern will be appropriate when public health and environmental concerns are either not a threat, or are addressed by centralized community septic or equivalent wastewater treatment systems.

# **Guidelines for Non-Residential Uses**

Commercial uses that serve the everyday needs of the community and surrounding agricultural area are appropriate. Industrial uses which serve the need of the surrounding agricultural or silviculture industries are also appropriate. Commercial and industrial uses should reflect the character of the community.

# INDUSTRIAL DISTRICT

# Purpose

The Industrial District identifies on the Land Use Plan the areas of Sussex County, which are zoned for industrial uses. Light and heavy industrial uses have the greatest effect on infrastructure, and the location of such uses requires careful evaluation. This evaluation should include, but not be limited to. the effect on public infrastructure such as roadways, water and wastewater systems, environmental effects such as stormwater management, and compatibility with adjacent land uses. While these uses often require being near major arterials, the effect on traffic should be mitigated by the provision of service roads and access to intersecting roads. access should be encouraged Rail whenever feasible. Some areas along U.S. Routes 13 and 113 are presently zoned Future rezoning should take industrial. place in Town Centers or Developing Corridor preservation studies Areas. should also be completed for U.S. Routes 13 and 113 before any further industrial rezoning occurs. The County's ultimate policy should be to encourage the adaptive reuse of existing underutilized or abandoned industrial sites and structures.

#### Location

The Industrial District includes zoned land for Marine Industry, Limited Industry, Light Industry and Heavy Industry. The District is separated into many parcels dispersed throughout the County. The majority of the parcels are located along major roadways, rail lines and waterways. In addition, there are numerous individual Industrial District parcels throughout the County. The majority of the industrially zoned land in the County is developed.

### **Guidelines for Infrastructure**

This District's guidelines for infrastructure are determined by the Zoning Ordinance and Subdivision Regulations.

### **Guidelines for Housing Types**

No housing is permitted in the Industrial District except for caretaker or related dwelling units.

#### **Guidelines for Density**

No housing is permitted in the Industrial District except for caretaker or related dwelling units.

#### **Guidelines for Non-Residential Uses**

Commercial uses in the Industrial District are those allowed by the Sussex County Zoning Ordinance.

#### **COMMERCIAL DISTRICT**

### Purpose

The Commercial District identifies on the Land Use Plan the areas of Sussex County, which are zoned for commercial uses. Retail commercial uses can be separated into three categories, those which serve neighborhood needs for convenience shopping, those which serve community needs such as food stores and pharmacies, and those which serve regional needs such as large shopping centers and big box The latter category has the retailers. greatest effect on infrastructure, and the location of such uses require careful This evaluation should evaluation. include, but not be limited to, the effect on infrastructure including roadways, water and wastewater systems. and environmental effects such as stormwater compatibility management and with adjacent land uses. While these uses often require being near major arterials, the effect on traffic should be mitigated by the provision of service roads and access from intersecting side roads. Many areas of U.S. Routes 13 and 113 are presently zoned commercial and any future rezoning should take place in Town Centers or Developing Areas. The County's ultimate policy should be to encourage the adaptive existing underutilized reuse of or abandoned commercial sites and/or structures.

### Location

The Commercial District includes zoned land for Neighborhood Business, General Commercial and Urban Business. The zoned land is separated into many parcels dispersed throughout the County. The majority of the District's parcels are located along State Route 1 north of Rehoboth Beach, along U.S. Routes 13 and 113, and within the Town Center or Developing Areas. In addition, there are numerous individual Commercial District parcels throughout the County. The majority of the commercially zoned land along State Route 1 and U.S. Route 13, and the individual parcels throughout the County are developed. The majority of the commercially zoned land along U.S. Route 113 is not developed.

#### **Guidelines for Infrastructure**

This District's guidelines for infrastructure are determined by the Zoning Ordinance and Subdivision Regulations.

#### **Guidelines for Housing Types**

Housing types appropriate for the Commercial District are those allowed by the Sussex County Zoning Ordinance.

#### **Guidelines for Density**

The residential density for the Commercial District is that allowed by the Sussex County Zoning Ordinance.

#### **Guidelines for Non-Residential Uses**

Industrial uses in the Commercial District are those allowed by the Sussex County Zoning Ordinance.

# LOW DENSITY AREA

# Purpose

The purpose of the Low Density Area is to provide for a full range of agricultural activities and to protect agricultural lands as one of the County's most valuable natural resources from the depreciating effect of objectionable, hazardous and unsightly uses. Approval of any rezoning or subdivision in this area is subject to the consideration of the criteria contained in shown in the Ordinance 1152 as Subdivision Regulations. Where low-density single-family approved, residential housing is appropriate, together with such churches. commercial. recreational facilities and accessory uses as may be necessary or are normally compatible with residential surroundings. The Low Density Area seeks to prevent untimely scattering of dense urban uses, which should be confined to areas planned for efficient extension of public services. Soils in this Area are generally suitable for on-site septic systems.

### Location

The Low Density Area includes the majority of Sussex County's acreage and generally consists of those areas that are not under the influence of medium to high-density development pressures.

### **Guidelines for Infrastructure**

Public water and wastewater systems are not planned for this Area. Development will use on-site wastewater disposal systems. Improvements to local roads will be limited to safety considerations and emergency evacuation.

# **Guidelines for Housing Types**

Housing types appropriate for the Agricultural Residential District are generally limited to single-family detached homes and manufactured homes, where permitted by ordinance.

#### **Guidelines for Density**

For lots using an on-site wastewater disposal system, the minimum lot size for single-family detached homes and manufactured housing is currently threequarters of an acre. Upon the adoption of an amendment to the zoning ordinance, the developer will have the option of clustering the homes using a minimum one-half acre lot size where soil conditions are suitable as determined by DNREC. If the cluster option is chosen, the number of lots allowed will not exceed the number permitted under the current ordinance. For lots using an on-site wastewater disposal system, the minimum lot size is 20,000 square feet.

# **Guidelines for Non-Residential Use**

The predominant use in this District will continue to be agriculture and agricultural related uses. Industrial uses that support or depend on agricultural or forest products are also appropriate. Bio-tech campuses and agricultural businesses should also be permitted. Limited retail uses and commercial business for convenience shopping and District related services would also be appropriate. "Right to Farm" and other legislation to protect the agricultural industry should be applied to this area.

# AG-LANDS PRESERVATION FOUNDATION AREA

# Purpose

The Ag-Lands Preservation Foundation Area identifies on the Land Use Plan the agricultural lands taking part in the Delaware Agricultural lands Preservation The Area includes both Foundation. Agricultural Preservation Districts which are preserved and protected for a minimum of ten years, and Preservation Easements (PDR's) which are preserved forever. It is and protected the responsibility of the land owner to request an extension after the ten year period if he

wants to remain in the program. The Areas purpose is to preserve agricultural land which results in the following public benefits: Protection of scenic areas for visual enjoyment, open spaces for clean air, production of food and other agricultural products and protection of valuable habitat.

### Location

Agricultural Preservation Districts and Easements are dispersed throughout the County.

#### **Guidelines for Infrastructure**

Public water and wastewater systems are not planned for this Area. Development will use on-site septic systems. Private wastewater treatment systems solely utilized for agricultural or related uses may be appropriate. Transportation systems and improvements will vary depending on location of each individual Area. The Area itself should not impact the capacity of the local transportation system.

### **Guidelines for Housing Types**

Housing types appropriate for the Ag-Land Preservation Foundation Area are single-family detached homes.

#### **Guidelines for Density**

The residential use of the Property shall be limited to housing units for the owner, relatives of the owner, and persons providing permanent or seasonal farm labor services. The housing units allowed shall be limited to usage of no more than one acre of land for each twenty acres of usable land on the Property, with a maximum of ten acres of land being used for housing units on the Property. No rezoning or major subdivision of the Property is allowed.

## **Guidelines for Non-Residential Uses**

Activities conducted on the Property shall be limited to agricultural and related uses which include all forms of farming, such as agriculture, horticulture, aquaculture, silviculture, and activities devoted to the production of food and other products

useful to man which are grown, raised or harvested on lands and waters. Agricultural related uses do not include such activities as: excavation, filling, borrow pits, extraction, processing and removal of sand, gravel, loam, rock or other minerals, unless such activities are currently required by or ancillary to any preparation for or operation of any activities involving aquaculture, farm ponds, cranberry production, manure handling facilities, and other activities directly related to agricultural production; acts. actions and neglect which are detrimental to drainage, flood control, water conservation, erosion control or soil conservation; or acts, actions and neglect that negatively affect the continued agricultural use of the land. No rezoning or major subdivision of the Property is allowed.

### NATURAL RESOURCE PROTECTION AREA

### **Conservation District**

### Purpose

The purpose of the Conservation District is to minimize adverse impacts on water quality that result from surface water runoff carrying nutrients from agricultural land and other pollutants from developed land. This District would conserve fish, wildlife and plant habitats through policies and programs to manage land use activities growth and in an environmentally sensitive manner. All development would be required to meet stringent construction measures to control stormwater management and sediment and erosion control as well as the general protection of the environment especially by maintaining existing vegetative cover. Innovative design would be encouraged construction for all to minimize disturbance to the environment. The Inland Bays Comprehensive Conservation Management Plan (CCMP) is a voluntary

program, which is used as a guide to evaluate impacts in the Inland Bays Watershed.

#### Location

The Conservation District is located one thousand feet landward from the mean high-water line of tidal water bodies, rivers or their major tributaries. Within the Conservation District there is a fiftyfoot buffer zone landward from the mean high water line of tidal waters, tidal tributary streams and tidal wetlands and from the ordinary high water line of perennial nontidal rivers and nontidal streams. Excluded from the buffer zone designation are farm ponds, tax ditches and other man-made bodies of water where these waters are not located on or within perennial streams. A buffer zone shall not be required for agricultural ditches drainage if the adjacent agricultural land is the subject of a conservation farm plan established with the Sussex County Conservation District.

#### **Guidelines for Infrastructure**

Public central wastewater facilities exist or are planned for much of the area around the Inland Bays. These facilities are intended to protect water quality in the area and not to encourage development.

### **Guidelines for Housing Types**

Housing types appropriate for the Conservation District are those allowed by the Sussex County Zoning Ordinance.

# **Guidelines for Density**

Guidelines for Residential Density within the Conservation District shall be determined by the availability of central wastewater facilities except that the minimum lot size for on-site septic systems will be one acre.

### **Guidelines for Non-Residential Uses**

Guidelines for non-residential uses are those allowed by the Sussex County Zoning Ordinance.

#### **Public and Private Resource District**

#### Purpose

The Public and Private Resource District identifies on the Land Use Plan the Protected Resource Areas of Sussex County which are under public or private ownership for specified uses; and not likely to be converted to nonrelated uses in the future. The primary purpose of this District is to preserve and maintain open recreational space for use and environmental conservation. In addition, the District includes major holdings of land for institutional and solid waste disposal uses. The majority of this District's acreage, which is contiguous with the Agricultural Area, is being preserved to maintain its natural character for environmental and open spaces purposes; and is not planned for intense recreation or other uses. A much smaller portion of District's acreage, contiguous with the County's Growth Area, provides active recreational facilities.

### Location

The District is separated into several resource parcels dispersed throughout the County with the majority of the acreage being comprised of natural habitat and active recreational areas adjacent to the coast, Inland Bays, Nanticoke River, Ellendale and Redden State Forests, and Great Cypress Swamp. Additional major holdings of land for institutional and solid waste disposal uses are centralized in the County.

### **Guidelines for Infrastructure**

The preservation parcels of this District will utilize on-site water and wastewater systems for any administrative, visitor and maintenance facilities. The existing roadway network will adequately serve limited recreation and other uses. However, the provision of a multimodal transportation system to interconnect the preservation parcels with each other, and with the County's Growth Area, could be

an asset to the natural environment and open space purposes of these parcels. The active recreation and other use parcels primarily contiguous with the Growth Area will often require public or centralized on-site water and wastewater This is especially true for systems. beachfront recreational facilities. The planning of any major expansion of these facilities should be coordinated with the expansion of adjacent Municipal or County water and wastewater systems. Likewise, transportation planning should be coordinated with that of the County's Growth Area as described for the Developing Areas.

#### **Guidelines for Housing Types**

Housing types appropriate for this district are recreational, employee or caretaker dwellings compatible with the activity and purpose of the resource parcel.

#### **Guidelines for Density**

Low, medium or high density appropriate for the activity and purpose of the resource parcel.

#### **Guidelines for Non-Residential Uses**

Commercial and agricultural uses appropriate to support the activity and purpose of the resource parcel.

#### GENERAL GUIDELINES FOR THE GROWTH MANAGEMENT DISTRICTS

#### **Manufactured Homes**

The term manufactured home as used in this Plan means a dwelling unit that (1) is not constructed in accordance with the standards set forth in the County's Building Code applicable to site built homes, and (2) is composed of one or more components each of which was substantially assembled in а manufacturing plant and designed to be transported to the home site on its own chassis. The term double-wide or multisectional manufactured home means a manufactured home constructed after July 1, 1976 that meets or exceeds the construction standards promulgated by the U.S. Department of Housing and Urban Development that were in effect at the time of construction and that satisfies each of the criteria contained in the Sussex County Zoning Ordinance for such homes. The term single-wide as used in this plan means a manufactured home constructed after July 1, 1976 that meets or exceeds the construction standard promulgated by the U.S. Department of Housing and Urban Development that were in effect at the time of construction but that does not satisfy the criteria necessary to qualify the home as a double-wide or multi-sectional manufactured home.

#### **Strip Development**

Strip development decreases roadway traffic capacity and increases safety hazards. New commercial development along major roadways should utilize service roads and connections between adjacent commercial users. The current Ordinance allows the subdivision of a maximum of four lots per parcel plus one additional lot for each ten acres in the parcel; and limits the recordation of no more than four lots in any one calendar year.

#### LAND USE GROWTH MANAGEMENT STRATEGIES

The Growth Management Districts of the Sussex County Comprehensive Plan address many of the issues that were voiced by residents during the Public Workshops and general planning process. In addition to the guidelines described for each Land Use District, specific Land Use Growth Management Strategies include:

- Create overlay zones for the Town Centers, Developing Areas and Environmentally Sensitive Developing Areas that will specify density and appropriate uses.
- Add bio-tech industries and agriculturally related industries as an allowable use in the AR-1 District
- Allow clustering to one-half acre lots in AR-1 District. Allowable density to be based on current three-quarter acre lot requirement.
- Use base density from present regulations, but allow clustering to 7,500 SF lots in the RPC, MR and GR Zones with central sewer.
- Revise permitted uses, conditional uses and special exceptions in the

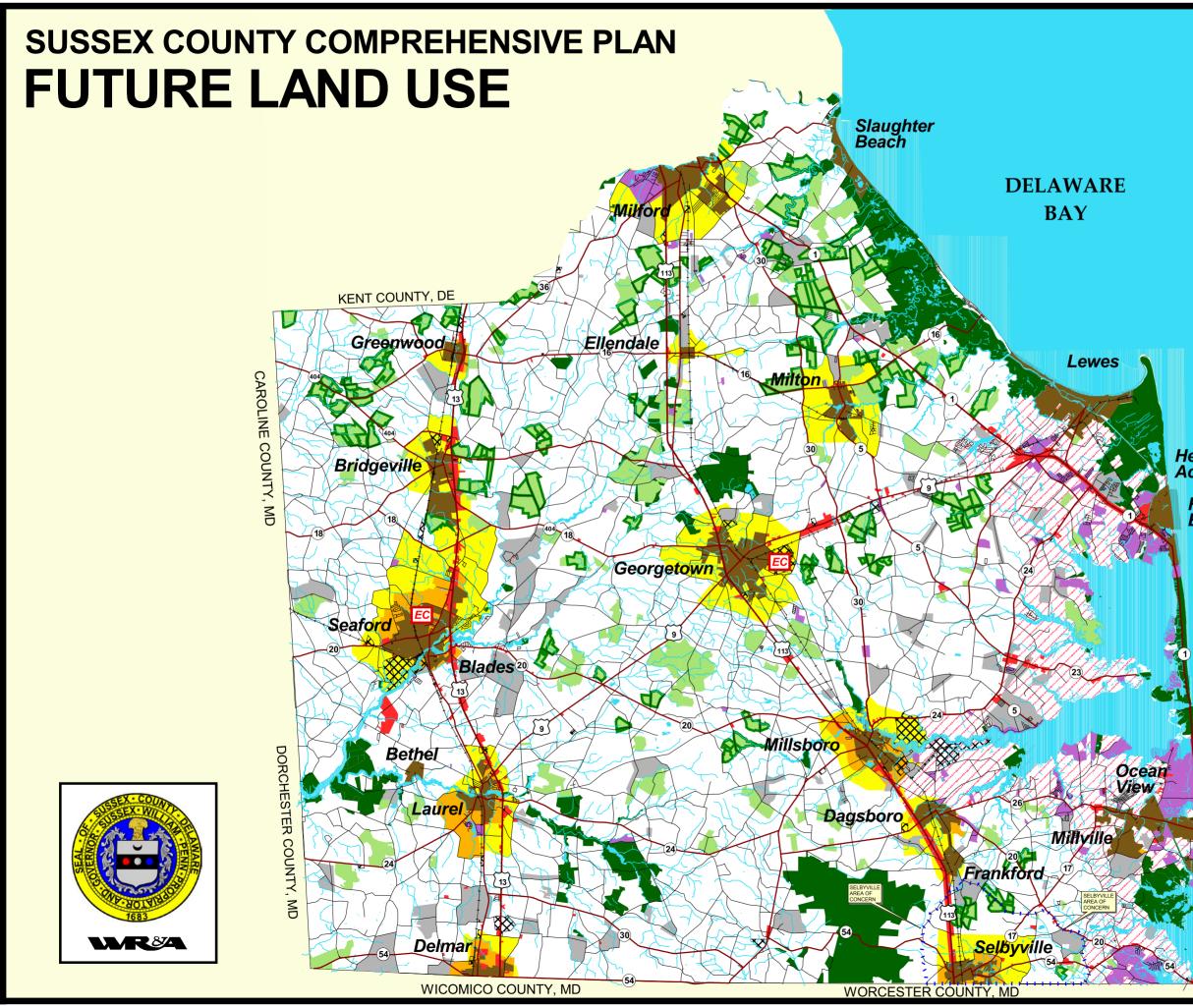
AR-1, MR, GR, M, B-1, and C-1 Districts.

- Decrease allowable residential density in Commercial Districts to four dwelling units per acre for newly rezoned districts.
- Create a new commercial zone for buildings containing 75,000 SF or greater.
- The Transfer of Development Rights is another tool in the preservation of farmland and open space that has been used with mixed success in other counties. Sussex County should undertake a study to determine the feasibility of such a program.
- The County should continue to support the Delaware Agricultural Lands Preservation Foundation and request the State to modify and/or expand the program to include farmland, which is not eligible under the existing program.
- Allow clustering to 7,500 SF for lots in the AR-1 Zone in Growth Areas.

Table 12 shows the recommended gross densities and uses for the Growth Area.

TABLE 11DERIVATION OF LAND USE PLAN UPDATE		
LOCATION	TOWN CENTER	DEVELOPING AREA
Delmar	Use town center from existing plan	Use Developing area from State
Laurel	Use Town Center from existing plan	Use Developing area from State
Bethel	Leave as is	No Developing area
Seaford	Use Town Center from Seaford Plan	Developing area from Seaford plan
Bridgeville	Use Town Center from Bridgeville	Developing area from Bridgeville plan
Greenwood	Use Existing town boundaries	Developing area from 16 east to Grubby Neck across 13 to Nanticoke River – north to northern boundary of town
Ellendale	Use existing town boundaries	Use sewer service area for Developing Area
Milton	Use existing town boundaries	Use Developing area from Milton Plan
Georgetown	Use Georgetown Plan for Town Center	Use Developing area from Georgetown plan
Millsboro	Use Town Center from existing plan and	Use Developing area from Millsboro Plan
Dagsboro and Frankford	Use Sewer service area for Town Center	Use State plan for Developing Area
Fenwick Island	Use existing town boundaries	Surrounding area is Environmentally Sensitive Developing Area
South Bethany Dewey Beach	Use existing town boundaries	Surrounding area is Environmentally Sensitive Developing Area
Bethany Beach	Use existing town boundaries for town center	Surrounding area is Environmentally Sensitive Developing Area
Ocean View and Millville	Use existing town boundaries for town center – note recent annexations and addition by State Map	Surrounding area is Environmentally Sensitive Developing Area
Rehoboth, Lewes, Henlopen Acres	Use existing town boundaries	Use State Plan. Add area west of Route 1 (already developed)
Slaughter Beach	No Change	No Change
Selbyville	Use existing Town Center	Use 5-year line. Add area of concern
Milford	Use Town Center from Milford Plan	Use Developing area from Milford Plan
Blades	Use Town Center from Blades Plan	No Developing area

TABLE 12 RECOMMENDED DENSITIES AND USES		
COMPREHENSIVE PLAN USE	APPLICABLE ZONING DISTRICTS	
Low Density Agricultural/Residential Area Allowable units based on three- quarter acre lot size Clustering allowed to one-half acre lot size	Agricultural Preservation Districts and Preservation Easements Agricultural Residential District (AR-1) Neighborhood Business District (B-1) Bio-Tech Industry Agriculturally Related Industries	
Low to Medium Density Environmentally Sensitive Developing Area Density is based on underlying zone	Agricultural Preservation Districts and Preservation Easements Agricultural Residential District (AR-1.) Neighborhood Business District (B-1). Medium Density Residential District (MR). General Residential District (GR). General Commercial District (C-1). Marine District (M). Limited Industrial District (LI-1). Light Industrial District (LI-2).	
Medium Density Developing Areas Four dwelling units/acre base density. (Higher densities may be permitted if area is adjacent to Town Center or other High Density Developed Areas)	Agricultural Preservation Districts and Preservation Easements. Agricultural Residential District (AR-1) Neighborhood Business District (B-1) Medium Density Residential District (MR) General Residential District (GR) High Density Residential District (HR-1 & HR-2) General Commercial District (C-1) Marine District (M) Limited Industrial District (LI-1) Light Industrial District (LI-2) Heavy Industrial District (HI-1) New Commercial District	
HIGH DENSITY Town Center Four to twelve dwelling units/acre gross density. (Or highest density allowed in adjacent municipality)	Neighborhood Business District (B-1) Medium Density Residential District (MR) General Residential District (GR) High Density Residential District (HR-1 & HR-2) General Commercial District (C-1) Marine District (M) Limited Industrial District (LI-1) Urban Business District (UB). New Commercial District	
COMMERCIAL DISTRICT	Neighborhood Business (B-1) General Commercial District (C-1) New Commercial District	
INDUSTRIAL DISTRICT	Limited Industrial District (LI-1) Light Industrial District (LI-2) Heavy Industrial District (HI-1)	



# FIGURE 2





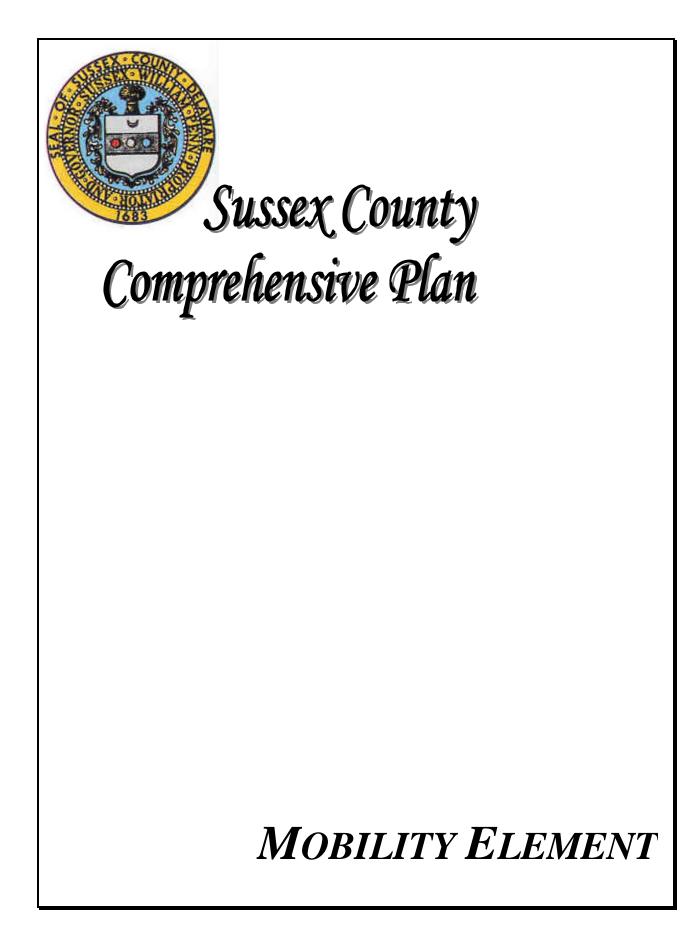
Bethany Beach







SOURCES: Delaware Department of Transportation Delaware Office of State Planning Coordination Delaware Department of Natural Resources and Environmental Control United States Geological Survey



## **MOBILITY ELEMENT**

#### GOAL

## PRESERVE AND ENHANCE THE EXISTING TRANSPORTATION SYSTEM, IMPROVE TRAVEL SAFETY AND CREATE ADDITIONAL TRAVEL ALTERNATIVES THROUGH A MULTI-MODAL TRANSPORTATION NETWORK.

#### LONG-RANGE TRANSPORTATION PLAN

The Long-Range Transportation Plan for Sussex County was a joint planning effort between Sussex County and the Delaware Department of Transportation and is the basis for the Mobility Element in the Sussex County Comprehensive Plan. Some of the important legal considerations that were taken into account are as follows:

#### **TEA-21 LEGISLATION**

Federal funding requirements do more than encourage the production of a Statewide Transportation Plan for Delaware every five years. They also prescribe, to a large degree, what must be taken into consideration in the preparation of such a plan.

The 1998 Federal "Transportation Equity Act for the 21st Century" (or TEA-21) requires state and metropolitan transportation plans to be financially realistic and to:

1. support economic vitality . . . especially by enabling global competitiveness, productivity and efficiency;

2. increase the safety and security of the transportation system for motorized and non-motorized users;

3. increase the accessibility and mobility options available to people and for freight;

4. protect and enhance the environment, promote energy conservation and improve quality of life;

5. enhance the integration and connectivity of the transportation system, across and between modes, for people and freight; 6. promote efficient system management and operation; and7. emphasize the preservation of the existing transportation system.

TEA-21...embodies a major shift in 1970's federal thinking about transportation planning, from an emphasis on moving vehicles to an emphasis on moving people and freight.

TEA-21 is a revised version of the 1991 ISTEA" legislation. It embodies (like its predecessor) a major shift in 1970's federal thinking about transportation planning, from an emphasis on moving vehicles to an emphasis on moving people and freight. While the word change may seem like minor semantics, it is much more than this. The change brings with it a requirement that those involved in transportation planning must think beyond just building more new highways to solve traffic congestion problems. It forces all states to take a much harder look at improving existing roads and at developing alternative methods of getting from place to place (multimodal systems). It also forces greater consideration of how people and goods move between types of transport during their journey (intermodal systems).

During the great mid-century American highway building period there was little serious consideration given to how public transit services like trains, buses, bicycles, and pedestrian paths might link together to provide a realistic alternative to the sole occupant automobile trip to work. Now, however, three separate sections of TEA-21 stipulate that transportation plans and programs must:

"provide for the development and integrated management and operation of transportation systems and facilities (including pedestrian walkways and bicycle transportation facilities".

Sidewalks that link homes with bus shelters and shops, bicycle paths that lead to schools and recreation facilities, bus routes that take people to employment centers and malls, and trains that link tourist areas with ferry services are all now considered potential ways to solve traffic congestion problems and provide basic mobility.

## **CLEAN AIR LEGISLATION**

Helping to motivate the search for alternative solutions to traffic problems is the Clean Air Act with its many amendments. This Act. born more than 30 years ago out of a growing recognition that air pollution can cause serious health and environmental problems, sets standards for the amount of chemical and particulate matter that is permitted in the air we breathe. Since its last major Amendment in 1990, these standards have been slowly tightening up and Sussex County was reinstated as a "marginal nonattainment" area under the Act in October 2000, after a brief period of compliance. As a consequence, all new transportation projects proposed in the state long-range transportation plan must be tested to ensure that they do not make existing levels of pollution any worse (as required under the Act). The federal air quality legislation will present planners and decision-makers an increasing challenge because significant increases in Sussex County population and vehicle use are projected as well as some continuing dispersion of land uses. These

changes may offset some or all of the anticipated reduction in vehicle and industrial emissions expected from technological improvements introduced over this period.

## WELFARE TO WORK LEGISLATION

The final significant piece of federal legislation presently affecting transportation decision-making in Sussex County is the 1996 Personal Responsibility and Work Opportunity Reconciliation Act, commonly known as the "Welfare to Work" Act. This Act reformed the nation's welfare laws by ending most "cradle to grave" welfare provisions and forcing those who relied on federal assistance to go back to work. In addition, Sussex County has a significant percentage of people on moderate to low incomes (35.6%) and many live in rural areas without access to good public or private transit. Finding alternative ways to help lowincome rural residents to get to work will be a particularly difficult local challenge for State and county growth some time. management plans promote long-term ways to improve low-income access to public transit. Both, for instance, promote public investment in infrastructure that encourages new development to occur in and around existing communities, making public transit easier and cheaper to provide.

## LIVABLE DELAWARE PROGRAM

In 1999, the Governor's Cabinet Committee on State Planning Issues approved a state investment strategy called "Shaping Delaware's Future, Managing Growth in 21<sup>st</sup> Century Delaware". The plan focuses the funding of transportation improvements largely in and around existing communities. This strategy is an important component of the "Livable Delaware" program, a new state program designed to address sprawl, congestion and other growth issues through legislation and policy changes. **THE PLANNING PROCESS** 

While this plan is based on today's best possible information about what life in Sussex County will be like in 25 years, this plan should be updated five years from now, in 2006. With public help, the 2006 plan update should assess how effective this 2001 plan has been in dealing with local issues, identify new transportation issues facing the county, and prioritize a new set of strategies and actions to deal with them, as was done for this update of the 1996 Long Range Transportation Plan for Sussex County.

#### **TRANSPORTATION SYSTEM OVERVIEW**



To plan for the future, it is also important to understand what

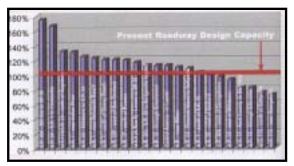
transportation infrastructure presently exists and what problems are anticipated over the next 25 years.

#### THE SUSSEX COUNTY ROAD NETWORK

The Delaware Department of Transportation (DelDOT) is presently responsible for 2,267 miles of roads in Sussex County or around 90% of all county roads. This mileage is almost unchanged since the last Sussex County Long Range Transportation Plan was prepared in 1996. The remaining 10% of roads are largely in incorporated towns or are private roads found in some rural housing developments, mobile home parks and commercial forests. The Department maintains 130 more miles of roads in Sussex than it does in New Castle County, and 924 more miles than in Kent County.

# ANTICIPATED ROADWAY PROBLEM AREAS IN 2025

In general, congestion is the result of having traffic demands that exceed roadway capacity. In some parts of the state the problem is visible daily. In Sussex, the problem is most visible seasonally. Some Sussex County highways nearly double their average daily traffic loads during the summer Tourist season. The bar chart above shows



what the Department of Transportation's computer model predicts traffic will be like in the future if no improvements are made to county roads other than those now included in the current Capital Improvement Program.

The projected location of traffic congestion is generally very similar to the projected location of congestion made in the previous Sussex County Long Range Transportation Plan. However, since the computer model for this plan used projected 1990 census data, the model probably under estimates the urgency of the problem. Although not yet ratified by the Delaware Population Consortium, Census 2000 data suggest that Sussex County's growth over the last decade was much higher than predicted.

#### TRUCKING, RAIL SYSTEM AND AVIATION

All but two percent of consumer goods in Sussex are delivered by truck. Trucks have become a vital component of the state's economy. Generally between five and ten percent of all vehicles on public roads are trucks, and on some roads (U.S. 13 and 113, and SR 18, 20, and 54) truck traffic can be at least double this. Sussex County has nearly one hundred miles of active freight railroad lines. This rail system has considerable excess capacity. According to the recent public survey, there is interest among Sussex County residents and employers in reintroducing passenger rail service in the county.

Sussex County has two aviation facilities available for public use. The major facility is the Sussex County Airport, owned and operated by the county government. The 5,000-foot, paved runway served a total of 45,000 flights in 2000, but is substantially under utilized. A smaller 3,100-foot turf runway airport is in Laurel.

## **PUBLIC TRANSIT SERVICES**

Local interest in public transit is growing because in some areas of Sussex County up to a quarter of the households have no access to a car. Carolina Trailways provides the only long distance, year-round, daily bus service in Sussex at the moment. However, the Delaware Transit Corporation (DTC) now operates a weekday local bus service in parts of the county, and in the coastal area it operates services daily from Memorial Day to Labor Day. In addition, the DTC operates a growing year round, on-call, door-to-door shuttle service for persons who are physically or mentally disabled.

## **PEDESTRIANS AND BICYCLISTS**

Because of the dominance of motor vehicles during the last half-century, large commercial and residential developments have been built with no thought given to pedestrians and bicyclists. However, walking and bicycling could become important forms of transportation and good development requires considering more than just the needs of motorists.

## TRENDS ANALYSIS

Our future transportation facilities (roads, transit services, etc) should be designed with the future demand for travel in mind. In order to plan an appropriate transportation system for Sussex County, it is essential to understand what changes are anticipated.

## LAND USE CHANGES

Between 1992 and 1997, the total amount of land used for residences in the county increased from 46,254 acres to 56,661 acres.

Commercial land use has also rapidly expanded, particularly along the major highways outside of town centers. Since the 1960s, for instance, the Coastal Highway (SR 1) north of Rehoboth Beach has been widened from two lanes to six, intersections have been improved, turn-lanes added, and lights have been timed to aid flow, in an attempt to deal with new commercial development in the area. Even so traffic movement has continued to slow down. Traffic has nearly tripled over this period to more than 35,000 vehicle trips on an average day and to more than 80,000 trips on the busiest weekend days.

## **GROWTH IN VEHICLE USE**

In some parts of Sussex County there is now as much traffic in winter as there was at the peak of summer only twenty years ago.

The total vehicle miles traveled (VMT) in Sussex County has risen sharply in the past decade, increasing by nearly 24%.

VMT is used to help calculate the amount of air pollution from vehicles in the county, and

its continuing increase means that Sussex County may find it increasingly difficult to comply with EPA clean air standards.

## **AN AGING POPULATION:**

The county's median age is 41.1 years old, and growing older. It is much older than the state's median age of 36.0. By 2020, more than one out of four residents will be part of the population segment that generally cannot drive (ages 0-16 and 75+)

## **POPULATION GROWTH:**

Sussex County's population was projected to grow 26% during the 1990's (compared to New Castle (11%) and Kent County (14%). Tentative Census 2000 results suggest the County actually grew 38%. Between 1995 and 2000, births and deaths produced a natural increase of 1,560 people while the net migration added 13,776 people. Nearly all of this new growth occurred in coastal areas.

## A LARGE SEASONAL POPULATION:

In the year 2000, seasonal visitors made up 40 percent of the seasonally-adjusted total population in Sussex County. The proportion of visitors to the permanent population is expected to remain at similar levels.

## **STRATEGIES**

#### ISSUE

There is a need to accommodate significant north-south through and regional traffic while preserving mobility for local residents and access to local businesses.

## STRATEGY 1:

Preserve and increase capacity on existing major north-south routes while pursuing plans for a north-south limited access highway on existing or new alignment.

• Implement improvements designed to preserve and increase capacity on US 13,

US 113, and SR 1 [such as building service (access) roads to provide local access, protecting R-O-W, removing unnecessary traffic signals and adding signals only when justified, providing grade separated intersections and adding additional lanes for through travel as needed] while protecting private property rights.

- Complete "Grid" Study projects and complete the State Route 1 Land Use/Transportation Study in the Five Points/Rehoboth Beach area.
- Implement • the following of joint recommendations the County/DelDOT north-south route feasibility study. DelDOT is in the process of selecting a consultant to continue the planning and design for this project:
  - Change the Corridor Capacity Preservation Program for US 113 into its own project, with an emphasis on converting the existing alignment into a limitedaccess facility.
  - Begin planning of a Milford bypass extension to preserve the needed right of way
  - Initiate discussions with the towns along US 113 to plan for improved connections to major east-west roadways, as well as the conversion of the existing alignment to limited access
  - Work with the County to better use existing ordinances to develop a policy to control access to US 113 and limit the number of additional traffic signals
  - Work with DelDOT to expedite planning on the Sussex County north-south highway. Determine the highway's route where it will differ from the existing route, so that the county can begin to protect the right of way for the project.

These actions should address the adequacy of north-south capacity in Sussex County for the foreseeable future. Should the study of the conversion of existing US 113 to limited access determine the need to look at alternate corridors because of economic impacts between Georgetown and the Delaware state line, the following corridors should be considered:

- Corridor 113-C, with an eastern bypass of Millsboro, Dagsboro, and Frankford
- Corridor 113-C, with a western bypass of Millsboro, Dagsboro, and Frankford
- Implement, in conjunction with the Delaware Tourism Office, a comprehensive information system for motorists using signs, radio and other means, to identify and promote preferred routes.
- Create a Corridor Overlay Zone for major east/west routes to preserve traffic capacity and allow for future widening.

#### Issue

There is a need to accommodate significant cross county traffic going to and from coastal areas while preserving mobility for local residents and access to local businesses.

## STRATEGY 2:

Complete recommended improvements to major east-west connector routes, consider bypasses for towns most affected by tourist or heavy truck traffic, and determine areas and roads suitable for an alternative local road network. For the long term, conduct a planning study for east-west links from the north-south limited access highway:

- Complete as soon as possible intersection, shoulder widening, and alignment improvements recommended in east-west corridor study
- Complete/undertake bypass studies for Georgetown, Bridgeville, Laurel and

other communities affected by tourist or heavy truck traffic

- Conduct a planning study to determine needed connections to the east and west from the proposed north-south limited access highway.
- Pursue local road network improvements; for instance, by using SR 9, 16, 20, 24, 26 and 404
- Implement, in conjunction with the Delaware Tourism Office, a comprehensive information system for motorists using signs, radio and other means, to identify and promote preferred routes
- Create a Corridor Overlay Zone to maintain capacity and permit future improvements on major east/west routes

## Issue

The local road network is extensive in Sussex County but it is presently difficult to use as an alternative to existing main highways because of local road design and alignment problems, and limited public knowledge.

## STRATEGY 3:

Identify, improve, and market roads in areas of significant seasonal congestion that could provide an alternative local road network:

- Undertake planning studies to determine areas and roads suitable for alternative local road networks (e.g. southeast Sussex County) and the implications for local land use strategies and controls
- Provide appropriate signage to improve traffic flow along routes.
- Aggressively market routes locally
- Undertake intersection, shoulder widening, and alignment improvements to improve local traffic (including agricultural machinery) movement where necessary.
- Implement, in conjunction with the Delaware Tourism Office, a comprehensive information system for motorists using signs, radio, and other means, to identify and promote preferred routes.

## Issue

There is currently a poorly defined and often misunderstood evacuation strategy. Current evacuation routes easily become congested and are prone to flooding in severe storms.

## STRATEGY 4:

Provide safe and efficient evacuation routes by implementing the recommendations of the Evacuation Route Study currently underway:

- Improve current evacuation routes.
- Address flooding on SR 1 and SR 26 (raising SR 54 above the 100 year flood plain level is in the current Capital Improvement Program).
- Identify other local routes that could serve as alternative evacuation routes.
- Designate evacuation routes on a regional basis in consultation with Maryland highway and emergency management officials.
- Implement a comprehensive information system for motorists using signs, radio and other means, to identify and promote preferred routes
- Prepare and distribute a new evacuation map.

#### Issue

Mobility is a significant problem for those in Sussex County without access to a car, including students, persons with disabilities, the elderly and those on low incomes. Alternative transportation modes, such as transit, sidewalk, and bicycle facilities, are becoming increasingly more important in giving residents and seasonal visitor's alternative means of travel to work, shops, and public facilities. Lack of mobility also poses a significant problem for employers and creates increased demand for social services.

#### STRATEGY 5:

Expand travel alternatives beyond the automobile, where feasible and appropriate, to provide a comprehensive transportation system throughout Sussex County, which includes bus and rail transit, ride sharing, bicycling and walking:

- Provide expanded transit services incorporating the use of non-traditional equipment (small buses, vans, and taxis) and innovative technology (real time schedule information) to improve mobility/access. Explore public/private partnerships to help provide such services and technologies
- Target seasonal bus transit services to provide travel alternatives in times of heavy congestion in coastal areas.
- Preserve existing rail corridors and encourage greater rail use for movement of goods.
- Provide safe bicycle and pedestrian mobility/access.
- Install infrastructure that supports travel alternatives, such as passenger shelters, sidewalks, signs, and bike racks.
- Develop educational, promotional and marketing materials and messages that identify and encourage the use of alternative forms of transportation.
- Investigate the feasibility of alternative transit technologies such as light rail and monorail for use in areas of high volume ridership.
- Provide educational information regarding the safe use of bicycles.
- Increase DTC Reimbursable Program funding, particularly for public/private organizations providing access to health services

#### Issue

Appropriate transportation facilities cannot be provided and sound transportation investments cannot be made without ongoing cooperation coordination and among municipal, county, state. and federal governments. Furthermore, transportation planning and land use decision-making, economic development strategies, preservation, agricultural land and environmental resource protection must be pursued in an integrated, coordinated fashion or else they will tend to undercut rather than enhance each other.

#### STRATEGY 6:

Strengthen communication and coordination among municipal, county, state, and federal governments in order to maintain an efficient transportation infrastructure necessary for responsible land development and economic vitality:

- Recognize impacts of land use decisions on transportation facilities and services as well as the impacts of transportation facility and service decisions on land use patterns.
- Maintain consistency between transportation improvements and state spending strategies.
- Coordinate transportation plans and strategies with applicable state and federal priorities and mandates including the Transportation Equity Act for the 21st Century, the Clean Air Act, and Livable Delaware Initiatives.
- Establish jointly through the County Council and Secretary of Transportation, a formal, funded, ongoing review and advisory group, similar to a Metropolitan Planning Organization (MPO), composed of municipal, county, and state government representatives to address and make recommendations regarding transportation, land use, and related infrastructure issues in consultation with other public and private parties.

#### Issue

There is an immediate need to improve the capacity and maintenance of arterial roads and collector roads in Sussex County.

#### STRATEGY 7:

Request additional funding for the projects included in the Sussex County Capital Transportation Improvement Program.

#### SHORT TERM NEEDS

## **TRANSPORTATION OPERATIONS Management Plan Data Collection**

A traffic study was conducted in the summer of 2000 by Edwards and Kelsey in Sussex County. This study was in support of the Transportation Operations Management Plan for DelDOT. The study included both traffic counts and travel times. The following statements and data came from that study.

"Sussex County's transportation system serves a unique blend of full time residents and recreational visitors throughout the year. Especially noteworthy are the traffic problems each summer, when there is a surge of tourists that visit the coastal resorts. The demand on roadways is the highest during and multiple this time. modes of transportation- transit, pedestrians, bicyclists and vehicles- converge in the popular business and beach areas in the coastal resorts.

The County faces exciting future growth that will continue to challenge its transportation system. It is home to seven of the fastest growing towns in Delaware, with six of those seven located in the coastal resort areas. As a whole, the county is expected to grow at a rate 10% faster than the statewide average.<sup>1</sup>

The Transportation Operations Management Plan (TOMP) for Sussex County has been introduced to assess the "big picture" of Sussex County – to examine the County's problems as a system, and to consider the effects of various initiatives as a whole. The first step in the TOMP has been the Summer 2000 Data Collection program – the formation of a baseline of transportation data associated with Sussex County's transportation network. Comprehensive county-wide transportation data has been collected by one team. The intent of this report is to objectively document the data that was collected, so that it can serve as a common platform for various levels of analysis and projects."

#### "Analysis

The guidelines suggested by the Highway Capacity Manual were used to determine the Level of Service (LOS) for Arterials. The HCM recommends the classification of an arterial base on free-flow speed, and the performance evaluation of an arterial based on travel speed.

In order to assess the worst case LOS that routes experience during the peak season, the lowest travel speed was used for each route. The results of the analyses demonstrate that performance of all but two segments of the arterials range from free flow operation (i.e., LOS = "A") to 50% of the average free flow speed operation (i.e., LOS = "C"). The link along SR 1 from Rt. 24 to Collins Avenue in Dewey performs at failing level of service (LOS = "F") which is characterized by extremely low speeds, heavy congestion and long queues. Furthermore, the link on Rt. 26 from Rt. 17 to SR 1 operates at level of service LOS = "E" which is characterized by long delay and heavy congestion. "

<sup>&</sup>lt;sup>1</sup> Based on "Delaware, Transportation Facts, 1999," published by DelDOT's Division of Planning.

Tables 13 and 14 show the results of the study.

#### TABLE 13

I ADLE I.	5		
		LEVEL OF SERVICE	
	SEGMENT	NB	SB
SR 1	At the Rt. 113 split	С	С
	Rt. 113 split to Rt. 16	С	В
	Rt. 18 to Rt 24	D	Е
	From south of Dewey	В	В
	To Rt. 54		
Rt. 113	SR 1 split to Rt. 16	А	В
	Rt. 16 to Rt. 20	В	С
	Rt. 20 to Rt. 54	В	В
Rt. 13	Kent County line to	В	В
	Rt. 404		
	Rt. 404 to Rt. 54	В	В

#### TABLE 14

		LEVEL OF SERVICE	
	SEGMENT	EB/NB	WB/SB
Rt. 16	Kent County line	С	А
	to Rt. 13		
	Rt. 13 to Rt. 113	В	В
	Rt. 113 to SR 1	В	В
Rt. 404	MD Border to Rt. 13	А	А
	Rt. 13 to Rt. 113	А	А
	Rt. 113 to SR 1	С	С
Rt. 24	Rt. 113 to SR 1	В	А
Rt. 26	Rt. 113 to Rt. 17	В	В
	Rt. 17 to SR 1	E	Е
Rt. 54	Rt. 13 to Rt. 113	А	А
	Rt. 113 to Rt. 20	В	В
	Rt. 20 to SR 1	С	В
Rt. 20	Rt. 113 to Rt. 54	В	С
SR 1	Rt. 24 to Collins	F	F
	Ave. (S. of Dewey)		

Critical intersections were also evaluated as shown on Table 15

TABLE 1	5
---------	---

E 13	-
Name	worst LOS
SR 1/1A split (Rehoboth)	F
	C
	D
	D
SR 1 and Road 268A	Е
(Dartmouth Dr.)	
SR 1 and Rt. 24	D
SR 1 and Rt. 26	D
SR 1 and Rt. 54	С
Rt. 9/404 and	C
Rt. 23 Connector	
Rt. 113 and Rt. 18	В
Rt. 113 and Rt. 15	D
Rt. 113 and Rt. 24	C
Rt. 113 and Rt. 20 east	C C
Rt. 18 (NB) and Rt. 16/36	C
Rt. 13 (68) and Rt. 16/38	В
Rt. 13 and Rt. 404	E
Rt. 26 and Rt. 54	А
Rt. 24 and Rt. 23/6	С
SR 1/1A split	В
(Dewey Beach)	
	Name         SR 1/1A split (Rehoboth)         SR 1 and Rt 16         SR 1 and Rt. 9         (Five Points)         SR 1 and Road 268A         (Dartmouth Dr.)         SR 1 and Rt. 24         SR 1 and Rt. 26         SR 1 and Rt. 54         Rt. 9/404 and         Rt. 23 Connector         Rt. 113 and Rt. 18         Rt. 113 and Rt. 15         Rt. 113 and Rt. 24         Rt. 113 and Rt. 20 east         Rt. 18 (NB) and Rt. 16/36         Rt. 13 (68) and Rt. 16/38         Rt. 13 and Rt. 54         Rt. 26 and Rt. 54         Rt. 24 and Rt. 23/6         SR 1/1A split

The effect of travel time is shown on Table 16. Diverting traffic to US 113 from SR 1 would improve the traffic congestion and provide travelers with a much shorter travel time.

#### TABLE 16

		LENGTH	TRAVEL
FENWICK ISLAND ROUTES (N/S)		(MILES)	TIME
To (Sat)	Rt 1	41.2	2:07:02
10 (Sat)	Rt 1 Rt 113, Rt 20, Rt 54	49.7	0:59:27
From	Rt 1	41.2	1:29:17
(Sun)	Rt. 113, Rt 20, Rt 54	49.7	0:59:45

#### SR1 LAND USE/TRANSPORTATION STUDY

In the summer of 2001, Sussex County and the Delaware Department of Transportation (DelDOT) partnered to address the problem of mobility along the SR1 corridor between Five Points and the Rehoboth/Dewey Beach area. The primary goal of the SR1 Land Use/Transportation Study is to develop a coordinated plan for land use in this area and a supporting transportation system that emphasizes interconnections.

After working with a public advisory committee for a year, two scenarios were presented to the public: one that showed build-out under current zoning using conventional development patterns, and one that showed build-out using activity centers and clustered development. While the activity center scenario would preserve open space and farmland and reduce congestion along SR1 (compared with the conventional build-out scenario), it has not been embraced by the public. The partnership between the County and DelDOT is continuing, and both the County and DelDOT are committed to addressing the issues of congestion and safety along SR1.

#### **EVACUATION PLAN**

There are a wide variety of emergencies that might require an evacuation of all or part of the population:

- ▶ Approximately 15% of all Delaware's housing units are in, or close to, areas that are potentially subject to some level of tidal inundation from a Category 2 hurricane. For a Category 4 hurricane, 24% of all Delaware's housing units are potentially subject to some level of tidal inundation. Fifty-eight percent of flood-vulnerable Delaware's housing (Category 2 hurricane) are in units. Sussex County. Flood-vulnerable housing units in Sussex County increases to 71% for a category 4 hurricane.
- Limited evacuation might be needed because of a hazardous materials transportation, accident, major fire, natural gas leak, or localized flash flooding.
- Large-scale evacuation could be required in the event of tornadoes, winter storms,

major terrorist attack with chemical agents or weapons of mass destruction.

Evacuation plans are a critical issue in Sussex County. A draft transportation plan (TMP) for evacuation has been developed by the Evacuation Committee and will become part of the Delaware Emergency Operations Plan (DEOP). The primary agency to administer the plan is DelDOT.

The designated evacuation routes for Sussex County are indicated in Table 17. These evacuation routes are all unlimited access roadways with numerous entrances and exits. Therefore, it is expected that traffic flow will continue normally (two-way) along these designated evacuation routes during an emergency. It is expected that evacuees will utilize the outbound lane(s) with emergency vehicles being directed to the inbound lane(s). Traffic management and control along the designated evacuation routes will be provided by DelDOT/TMC with assistance from the DSP.

#### **DESIGNATED EVACUATION ROUTES**

#### TABLE 17

Route	From	То
1	Kent County Border	Maryland Border
5/23	SR 1	Route 22C
20 (382)	Route 26	Route 54
24/5	SR 1	Route 20
113	Kent County Border	Maryland Border
13	Route 16	Route 24
54	SR 1	US 113
26	SR 1	Route 26/30
24	Route 24/26	US 13
20	Route 24	US 13
9	Lewes &	Route 18
	Rehoboth Canal	
18/404	US 9	Maryland Border
16	1 mile inland	Kent County
		Border
224	Slaughter Creek	SR 1
36	2 miles inland	SR 1

#### CAPITAL TRANSPORTATION IMPROVEMENT PROGRAM SEPTEMBER 12, 2002

Based on the need to relieve traffic congestion and provide for emergency evacuation, Sussex County has requested that additional funding be put into the Capital Transportation Improvement Program for the following projects.

#### TABLE 18

1	North-South Limited Access Highway	
2	East-West Improvements	
	a. SR 36 from US 113 west of Milford to SR	
	404 east of Greenwood	
	b. SR 16 from SR 36 east of Greenwood to the	
	termination at the Delaware Bay	
	c. SR 404 east of US 113 to Delaware	
	Technical & Community College Georgetown	
	west of US 113 and east of SR 5 to SR 1 west of	
	Lewes	
	d. US 113 and east of SR 5 to SR 1 west of	
	Lewes	
	e. SR 24 from Rt. 113 east to the Route 1	
	intersection north of Rehoboth	
	f. SR 26 from the Assawoman Canal west to	
	US 113	
	g. SR 54 from SR 58C west to US 113	
3	SR 1 Dewey Beach improvements Salisbury	
	Road, Dewey Beach, to Lewes and Rehoboth	
	Canal	
4	SR 30 and SR 5 from SR 24 to north to Route 1	
5	Georgetown - Park Avenue SR 318 east of	
	Georgetown and SR 321 south of SR 9 have	
	been designated as a Truck Relief Route for the	
	Town of Georgetown	
6	US 13 Corridor Capacity improvements	
7	Stationary Message information System	
8	Indian River inlet Bridge	
9	Sussex County Aviation	
10	County Road Concerns	

## Additional Roads Requested To Be Included For Upgrade and Expansion

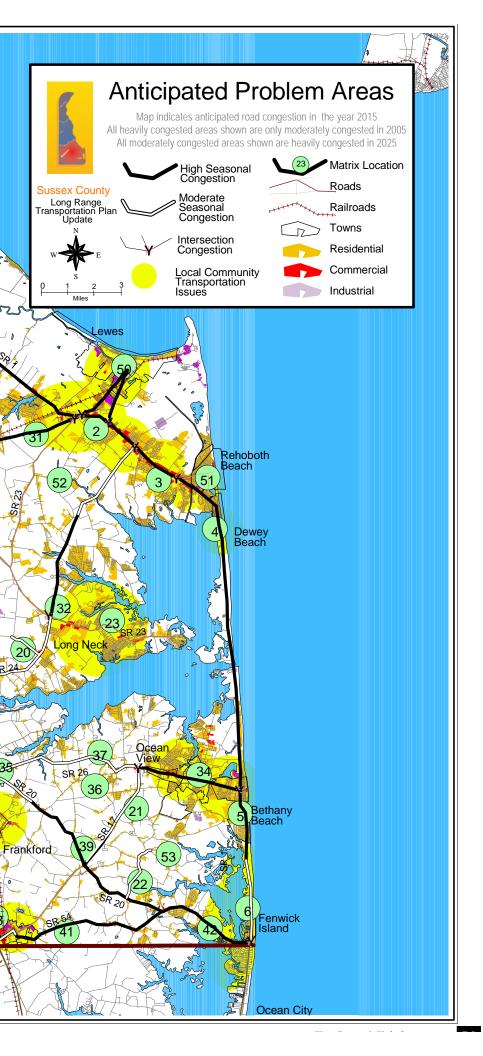
#### TABLE 19

ROUTE	ROAD NAME	
HOLTS LANDING		
346	Holts Landing Road	
346A	Tuckahoe Road	
347	Whites Neck Road	
348	Irons Lane	
	BETHANY BEACH	
350	Railway Road	
351	Clubhouse Road	
	BEAR TRAP	
361	Muddy Neck Road	
362	Parker House Road	
363	Double Bridges Road	
368	Beaver Dam Road	
	LAUREL	
446	Beaver Dam Branch Road	
474	Kaye Road	
475	Sycamore Road	
497	Old Hickory Road	
	Angola	
277	Angola Road	
278	Angola Beach Road	
279	Camp Arrowhead Road	
W. REHOBOTH		
270	Wolfe Neck Road	
271	Holland Glade Road	
273	Hebron Street	
Lewes		
266	New Road	
267	Gills Neck Road	
268	Kings Highway	
	BROADKILL	
16A	South Bayshore Drive	
	Georgetown	
431	Conaway Road	
432	Cross Keys Road	

# Figure 7-2 Anticipated

Problem Areas Milford See Matrix for details aughter Beach 1. SR 1 from SR 16 to Five Points (including SR 16 junction) 2. SR 1 from Five Points to SR 24 (Including SR 23, US 9 & 9A) 3. SR 1 from SR 24 to Dewey Beach (Including Rehoboth Ave junction) 4. SR 1 through Dewey Beach (Including Bayard junction) s' 2 5. SR 1 through Bethany/South Bethany (including SR 26 junction)  $\overline{7}$ 6. SR 1 through Fenwick Island (including SR 54 junction) 7. SR 1 outside above identified areas 8. US 13 through Greenwood 20 T> are (including SR 16 junction) All and 9. US 13 through Bridgeville (including SR 404 junction) 10. US 13 through Seaford/Blades Ellendale (including SR 18, 46, 534, & 20) Greenwood 25  $\langle 26 \rangle$ 11. US 13 through Laurel Sp 27 ω (including US 9, SR 24, 462, 466) SA 12. US 13 through Delmar 402 (including SR 54 intersection) 47 \r the 13. US 13 outside above identified areas \$ 14. US 113 through Georgetown (including US 9, SR 404 junctions) Miltor 19 15. US 113 through Millsboro (including SR 24 Junction) (24) Y g Bridgeville 16. US 113 and SR 20 Junction (and adjacent US 113 corridor) 17. US 113 through Dagsboro and Frankford (including SR 26 & C54) 18. US 113 from Frankford to MD line 28 (including SR 54 junction) SR 18 19. US 113 outside above areas 29 30 20. SR 297 west of Oak Orchard 21. SR 17 north of Roxana 22. C 384 north of SR 20 (Bayard Rd) 48 23. Route 23 on Long Neck 24. Other North-south transportation strategy Georgetown 25. SR 16 through Greenwood 14 (including both SR 36 intersections) Seaford 26. SR 16 west of Ellendale (including SR 113 junction) 27. SR 16 outside above identified areas 28. SR 18 Maryland line through Bridgeville 40 (including Federalsburg Rd) Blades 29. SR 404 Maryland line to Georgetown 30. SR 404/US 9 corridor through Georgetown 31. US 9 west of Georgetown to Lewes SR 20 Millsborg (also Bus. 9) 32. SR 24 from SR 23 to Lowes Creek 33 49 (including SR 23 junction) 33. SR 24 Millsboro to SR 1 (other than SR 23 to Lowes Creek) 34. SR 26 through Millville/Oceanview Bethel (43) (including SR 17 junction) 11 🧷 35. SR 26 through Dagsboro 16 (including SR 20 junctions) 38 45 X-35 36. SR 26 alternate (Burrage Road) Dagsboro 37. SR 26 outside above identified areas Laurel (between SR 1 and US 113) 38. SR 20 Millsboro through Dagsboro SR 24 US 13 1 39. SR 20 south of Dagsboro to SR 54 SR 40. SR 20 through Seaford (US 13 to Maryland Line) 41. SR 54 from US 113 (Selbyville to 58 C) 42. SR 54 from 58 C to Fenwick Island SR 30 43. Other East-west transportation (& evacuation) strategy 44. Seaford (Alternate Route 13) 45. Laurel (Central Avenue, Alt route 13) SR 54 SP 54 46. Delmar (Alternate Route 13) 12 Delmar 47. Milton (SR 30 and SR 5) 46 SR 54 Selbyville 48. Georgetown 49. Millsboro 50. Lewes 51. Rehoboth 52. Rehoboth/northeast Sussex (local road network) 53. Fenwick Island/southeast Sussex Salisbury

(local road network)

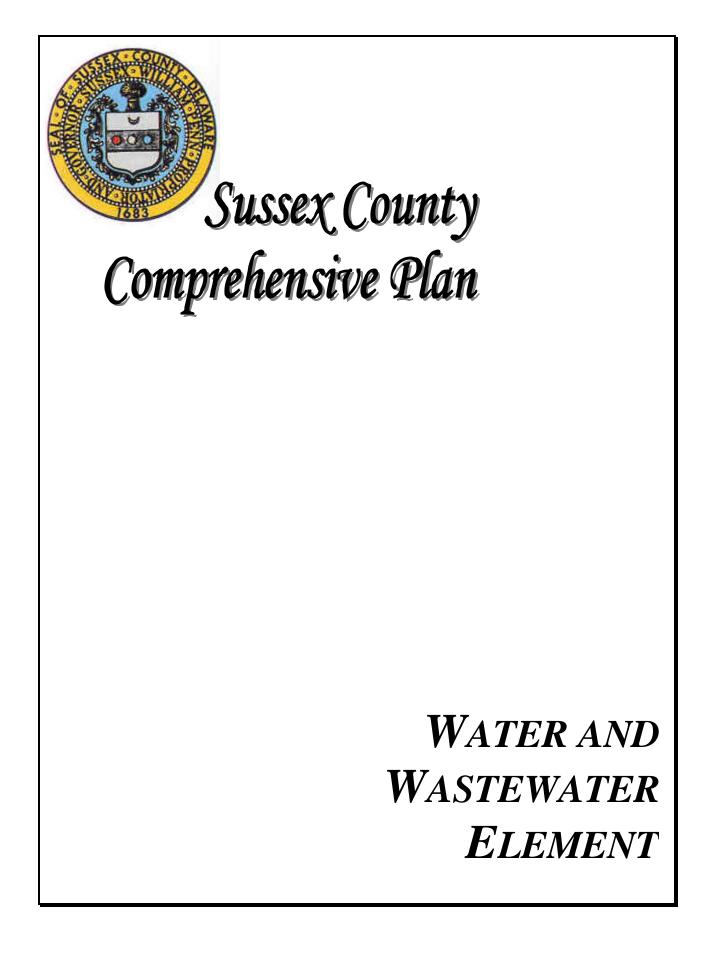


R

20

LER 20

SB 24



## WATER AND WASTEWATER ELEMENT

GOAL

#### PLAN WATER AND WASTEWATER SYSTEMS THAT WILL PROTECT CRITICAL NATURAL ENVIRONMENTS AND PROVIDE THE INFRASTRUCTURE FOR FUTURE GROWTH.

#### WATER

The Division of Public Health monitors the water of Sussex County's residents whom are served by central water systems. The sole source of potable water in the County is groundwater from wells drilled ranging in depth from 55 feet to 485 feet. Water supply in western Sussex County is obtained from the Columbia and Manokin formations. While these sources provide substantial quantities of good quality water, they are unconfined aquifers and subject to pollution from surface sources. Wells have to be monitored and sometimes continuously abandoned. Consequently wellhead protection is a priority issue in this area. In 1996, the U.S. Congress amended the Safe Drinking Water Act and added a new program called the Source Water Assessment and Protection Program (SWAPP). Citizen Technical А and Advisory Committee consisting of private agricultural organizations, citizens. organizations, environmental civic organizations, industry, water suppliers and other interested parties developed the Source Water Assessment Plan (SWAP) in Delaware. Each public water system will have an assessment of their susceptibility to contamination. To date, assessments have been completed for Seaford and Lewes. Based on the results of the assessments, a wellhead protection program will be initiated.

The delineation of areas critical to protecting the quality of and quantity of water sources has been underway for several years. The areas are divided into two categories, wellhead protection areas (the area surrounding a wellhead) and recharge potential areas.

The DNREC policy for delineating wellhead protection areas provides the guidance for delineating the source water assessment areas around public water supply wells. This policy applies to all of the categories of wells listed previously. All public supply wells pumping at or less than 50,000 gallons per day (gpd) are assigned a circular wellhead area of 150 feet radius centered on the well. For most low pumping-rate wells the 150-foot radius would include the 5-year time of travel. Also more detailed wellhead protection area (WHPA) delineations at low pumpage are not credible due to their sensitivity to ground water flow direction. On the other hand, all public water system wells withdrawing more than 50,000 gpd would have a wellhead protection area delineated using various modeling techniques such as USEPA's WHPA Code and the United States Geological Survey's Modflow computer model.

## Water Demand

A report by Whitman, Requardt and Associates, LLP in May 1998 estimated projected water demand for western Sussex County from public water supplies to be as follows:

AREA	2000	2020	
AKEA	GPD	GPD	
<b>Incorporated town</b>	S		
Greenwood	167,000	205,000	
Bridgeville	203,000	302,000	
Seaford	1,863,000	2,175,000	
Blades	130,000	162,000	
Laurel	498,000	768,000	
Delmar	335,000	668,000	
Sub-total	3,196,000	4,280,000	
Unincorporated A	reas		
Greenwood	39,900	51,600	
Bridgeville	6,900	9,300	
Seaford	237,600	291,300	
Blades	558,900	681,900	
Laurel	216,300	301,200	
Delmar	156,300	218,100	
Sub-total	1,216,000	1,553,000	
Franchised Water Systems (1)			
Projected Water	128 000	166 000	
Demand (2)	128,000	166,000	
Total	4,540,000	5,999,000	

Notes: Total water demands rounded to the nearest thousand/minor differences due to routing.

- (1) Tidewater Utilities and Public Water Supply Company
- (2) Projected annual growth rate of 1.3%

Water used for livestock or irrigation is not included.

The principle aquifers in eastern Sussex County are the Columbia, Pocomoke and Manokin and a combination Columbia/Pocomoke aquifer. The Columbia/Pocomoke and the Columbia aquifers are generally considered unconfined, whereas the Manokin and Pocomoke are confined aquifers.

In the Inland Bays/Atlantic Ocean Basin, approximately 23% of the major public wells withdraw water from confined aquifers. With the exception of Frankford and Millsboro, which have public wells drawing water from the Pocomoke and Manokin aquifers, respectively, most confined wells are located along the coast as shown below:

TABLE 21
----------

TOWN/SUBDIVISION	AQUIFER
Sussex Shores	Pocomoke
Town of Bethany Beach	Pocomoke/Manokin
Sea Colony	Manokin
Fenwick Island	Pocomoke
South Bethany	Pocomoke
Source: Phelan, 1987	

The Manokin and Pocomoke aquifers are mostly undeveloped in the inland portions of the Basin and are believed to have additional capacity for withdrawals without any adverse effects (Talley. 1987). A modeling analysis performed by Hodges (1984) simulating pumping increases through the year 2004 indicates that yearly average water levels in eastern Sussex County would not be affected by increased withdrawals from these confined aquifers in most areas. An exception is in the Lewes area where the simulation indicated that water levels could drop below sea level and could result in saltwater intrusion along the coast.

The Columbia/Pocomoke Aquifer refers to that portion of the unconfined aquifer that is composed of Bethany formation sands. The Columbia/Pocomoke Aquifer is most extensive in the southern portion of the Basin where it attains a maximum thickness of approximately 100' near Millville. Nearly domestic. irrigation, all and agricultural wells draw water from the Columbia Aquifer (Andres, 1987). Approximately 77% of the major public wells in the Basin draw water from the unconfined aquifer. Major public wells include community, non-transient noncommunity, and transient non-community public wells. The table below lists the total number of wells of each type in the Basin.

#### TABLE 22

NUMBER OF WELLS BY TYPE IN THE INLAND		
<b>BAYS/ATLANTIC OCEAN BASIN</b>		
	NUMBER OF	
WELL		ALLOCATED
Түре	TOTAL	WELLS
Public	696	82
Irrigation	247	39
Industrial	88	16
Domestic	14,810	N/A

Hodges (1984) reports an equivalent population in coastal Sussex County in 1975 of 72,122 persons. An equivalent population is a total population that accounts for year-round residents and tourists. In 1976, average daily water-use volumes for the Inland Bays/Atlantic Ocean Basin were shown as follows:

#### TABLE 23

AVERAGE DAILY WATER USE IN THE		
INLAND BAYS/ATLANTIC OCEAN BASIN		
<b>DURING 1976</b>		
	TOTAL DAILY	
	VOLUME	
WELL TYPE	IN GALLONS	
Municipal Wells	2,482,400	
Rural/Domestic	1,818,300	
Agricultural/Irrigation	2,553,000	
Industrial	3,327,700	
Total	10,182,300	

Based on census data from Cassell and Meals (1999), an equivalent population of roughly 100,432 residents lived in the Inland Bays/Atlantic Ocean Basin during 1996-1997. But this value is low because these authors did not include the Iron Branch, Buntings Branch, and Lewes-Rehoboth Canal watersheds in the census count. Multiplying this residential population by a per capita water use of 75 gpd gives an estimated total daily drinking-water use of 7,532,000 gallons.

According to information furnished by the Water Resource Division of the United States Geological Survey, the most recent water report on water use published in 1999 (Wheeler) stated that the demand for all categories of freshwater use in Sussex County was approximately 93 million gallons per day and nearly 90 percent of this water is used for industry and irrigation. Although total water is an important consideration, the total water balance is more important. Water used for irrigation is returned to the surface aquifer less a minor amount lost to evaporation and transpiration. Similarly, on-site wastewater systems and treatment facilities using spray irrigation return the water to the aquifer.

Sundstrom and Pickett (1969) estimated that as much as 100 million gallons per day can be developed from the unconfined aquifer in eastern Sussex County without causing serious adverse impacts to the quality of the aquifer and other current uses. Total water use in the Columbia Aquifer is not currently known, but based on population and average per capita water-use data, this value is believed to be less than 24 million gallons per day.

As of October 1999, there were a total of 487 public water supply wells in Sussex County broken down as follows:

TABLE 24	
Community Public Water Systems	337
Schools, Day Care, Offices, Factories	76
Restaurants, Stores, Hotels,	74
Recreation Areas	, .
Total	487

There are a total of 127 community water systems in Sussex County with the largest being as follows:

## TABLE 25

COMMUNITY WATE	R SYSTEMS
(OVER 500 CONNE	CTIONS)
	SERVICE
System Name	CONNECTIONS
Angola Beach	600
Angola By the Bay	681
C/o Tidewater Utilities	001
Bethany Beach Water Dept.	2,060
Town Office	
Bridgeville Water Department	560
Delmar Water Department	924
Dewey Beach Water Dept.	1,933
C/o Sussex County Council	1,755
Georgetown Water Dept.	774
Laurel Water Dept.	1,160
Lewes Water Dept.	1,800
C/o Board of Public Works	1,000
Long Neck Water District	2,611
Millsboro Water Department	1,047
Milton Water Department	750
Oak Orchard Public Water	
Supply Co.	1,456
Rehoboth Beach Water Dept.	2,740
Rehoboth District	001
C/o Tidewater Utilities	891
Sea Colony	1,317
Seaford Water Department	1,750
Selbyville Water Department	700
Sussex Shores Water Co.	950
Swann Keys Swann Keys	575
Civic Association	515

## WASTEWATER

The Delaware Statistics Center estimated in 1990 that sixty percent of Sussex County residents used on-site wastewater disposal systems. When properly designed and built on appropriate soils these systems are generally very reliable, and can be expected to last twenty years or more. However, onsite wastewater systems failures continue to occur both in isolated cases involving single homes, and in subdivisions or small communities where a number of systems experience chronic operational problems. Numerous studies have developed specific recommendations for improving the proper application and use of septic systems. These recommendations include: Assure that individual on-site septic systems are properly designed and installed; Assure that on-site systems are properly operated and maintained; Assure that the density of individual on-site systems does not threaten groundwater quality; and Assure that the long-range wastewater management needs of rural communities are considered infrastructure facility planning studies.

While agricultural activities are the primary contributors to nitrate levels in the inland bays, residential developments without centralized wastewater treatment systems are the source in need of the most immediate resolution. The importance of water and wastewater facilities to Delaware's quality of life initiated the formulation of the Water and Facilities Advisorv Council the Wastewater Facilities Advisory Council. These councils in turn initiated statewide needs assessments for water and wastewater. A Comprehensive Statewide Wastewater Facilities Assessment was completed in the summer of 1996. The assessment evaluated the fourteen public wastewater treatment facilities in Sussex County. The County operates four of these facilities that include

ten sewer districts. The remaining ten facilities are Municipal wastewater treatment systems. Communities determined to have the greatest need for public wastewater systems are located near Ellendale, Delmar, Frankford, Oceanview, the town of Slaughter Beach. and Communities of medium need are located around the Inland Bays, Milton, Broadkill, Coverdale Crossroads, and the southeast of Milford. Communities of least need are primarily located around Seaford, Laurel, west of Milford, and the town of Bethel. The unsewered communities have the least need for public wastewater systems are located in soils suitable for on-site wastewater disposal systems, however, the planning for public wastewater systems in these unsewered communities is necessary to prevent future health and environmental problems.

## **County Wastewater Treatment Facilities**

Over the past ten years, Sussex County has made significant progress in providing central wastewater facilities in the developed areas. All of the coastal towns and much of the inland bay area now has access to these facilities. The South Coastal Regional Wastewater Facility serves an estimated 51,000 people in Bethany, South Bethany, Ocean View, Fenwick Island, and the inland bay areas around Little Assawoman Bay and will serve Millville in the future. This plant uses an ocean outfall with a capacity of 22 million gallons per day to dispose of the effluent. The present treatment capacity is 6 million gallons per day (MGD) and the summer peak flow was 4.64 MGD in July 2001. Sussex County is in the process of increasing the capacity of the treatment plant to 9 MGD with a peak capacity of 14 MGD. It is anticipated that this will provide sufficient capacity to serve the projected growth in the South Coastal area through the year 2025.

The Inland Bays Regional Wastewater Facility serves Long Neck and will be expanded to serve Oak Orchard. It has a design capacity of 1.5 million gallons per day and utilizes spray irrigation to dispose of the effluent. The average flow in July 2002 was 650,000 gallons per day leaving an excess capacity for an additional 2,700 equivalent dwelling units.

The Wolfe Neck Wastewater Treatment Facility is the largest lagoon and spray irrigation system in Delaware. It has a design capacity of 4.0 million gallons per day and it is projected that sufficient capacity exists to accommodate additional connections to the year 2009. The County Engineering Department is currently seeking additional lands or other methods of discharge to increase the capacity to 7.5 million gallons per day, which will accommodate the build-out of the entire West Rehoboth Sewer District.

The County also provides sewer service to Frankford and Dagsboro at the Piney Neck Regional Wastewater Facility. It also uses spray irrigation to dispose of this effluent and has a design capacity of 200,000 gallons per day. The flow in July 2002 was 90,000 gallons per day leaving an excess capacity to accommodate 366 additional equivalent dwelling units.

The County is in the process of providing sewer service to Ellendale with the effluent going to the Georgetown Wastewater Facility. The County provides sewer service to Blades with the effluent treated by the Seaford City treatment plant.

## Municipal Wastewater Treatment Facilities

Rehoboth Beach treats sewage from Dewey Beach and Henlopen Acres and discharges to the Lewes and Rehoboth Canal. On October 22, 2002, the County entered into an agreement with the City of Rehoboth Beach to study discharge alternatives. This study is being funded 50 percent by the State of Delaware, 25 percent by the County, and 25 percent by the City of Rehoboth Beach. Millford, Georgetown, Millsboro, Milton and Selbyville operate their own treatment facilities.

## Western Sussex County Study

In 1998, Whitman, Requardt and Associates, LLP, completed a sewer plan for western Sussex County. They evaluated the capacity and anticipated growth for each municipal service area. Bridgeville (also treating Greenwood's sewage), Seaford, Laurel and Delmar each have their own treatment facilities. Blades sewage is collected by a County system and discharges to the Seaford Treatment Facility. The study indicated that the cost to serve the developing area would be \$42 million dollars. This was based on the population projections by the Delaware Population Consortium over the 25-year planning period.

The study recommended that the County consider a new regional treatment facility near Blades and south of the Nanticoke River. This facility has the potential to treat sewage from Laurel and Delmar. Although recently completed Seaford has the expansion of its wastewater treatment facility, service of the developing area north of Seaford will eventually exceed the design limits of the existing treatment plant that discharges into the Nanticoke River. A new western regional wastewater treatment plant could serve all or a portion of the Seaford area.

## WASTEWATER AND WASTEWATER GROWTH MANAGEMENT STRATEGIES

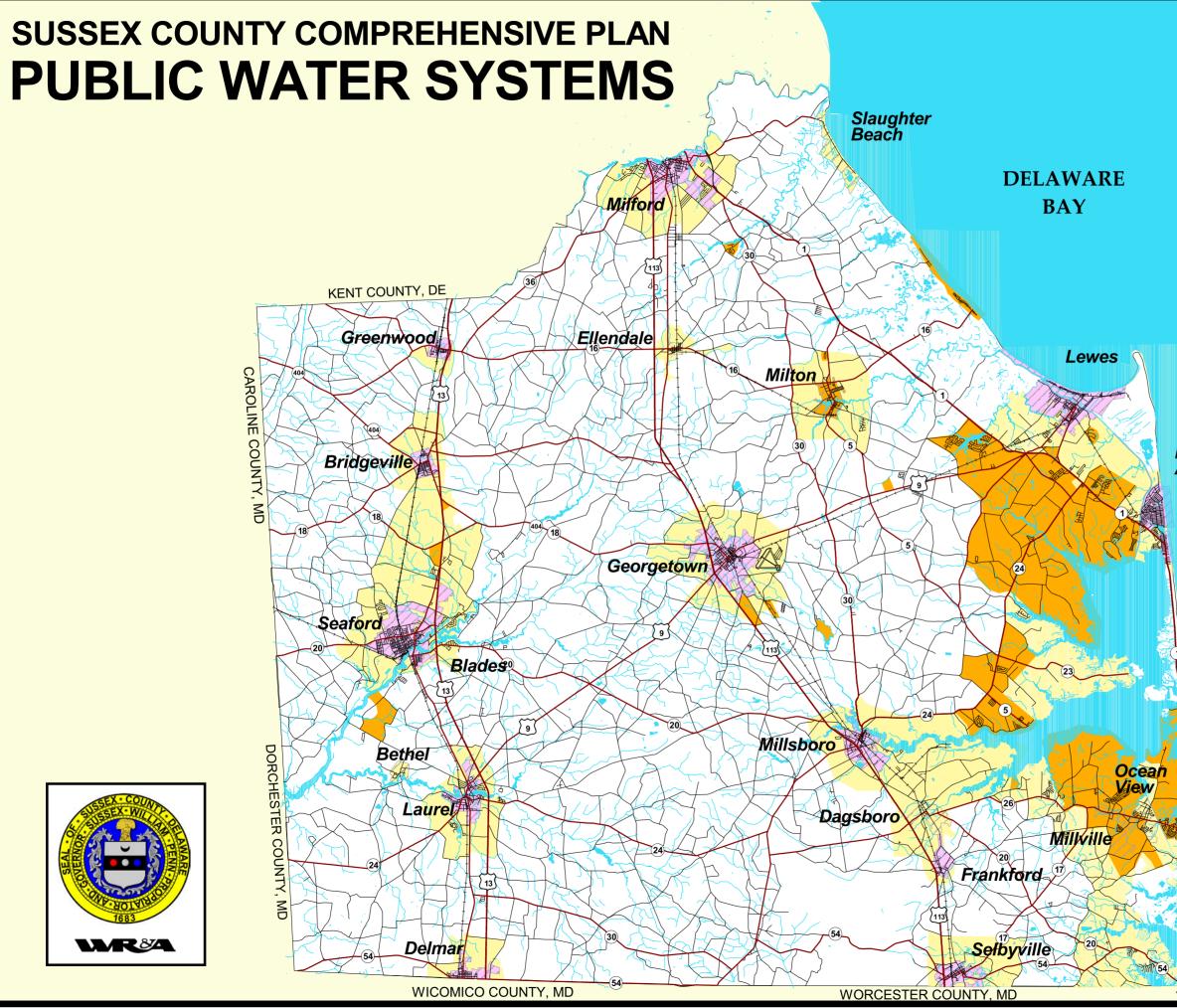
The Growth Management Districts build upon the fact that many of Sussex County's municipalities have formal plans for expansion and offer central water and wastewater systems that can serve a variety of residential, commercial and industrial development opportunities. Therefore, municipalities and adjacent areas offer the greatest potential for development with the least impact Sussex on County's environment, healthful living standards, agricultural industry and transportation network. Concentrating growth supported by adequate public and private investments within and around the municipalities will protect and enhance Sussex County's character.

Specific Water and Wastewater Growth Management Strategies include:

- Encourage the re-establishment of federal funding programs for water and wastewater construction projects.
- Establish an intergovernmental planning program to coordinate, support and promote the expansion of existing Municipal water and wastewater systems and commence planning for their extension into appropriate Growth Areas.
- Regulate existing private wastewater systems. Growth should be directed toward public systems and the use of private systems discouraged.
- DNREC should continue to monitor and modify policies and procedures relating to review and approval of subdivision plans and issuance of individual sewage disposal system permits, placing more emphasis on site evaluation, planning and design to assure

the proper application of on-site systems. Require periodic five-year, re-certification of on-site systems to ensure that systems are working properly.

- Long-term ground water quality monitoring should be continued by the State and coordinated with all Growth Management. Strategies of the Comprehensive Plan. Monitoring should occur on a site-specific basis in areas that have known contamination problems, and continued over a wider area to determine the extent of the contamination.
- In keeping with the goal of limiting discharges to the waters of Delaware, encourage the use of land application methods for treating and disposing of sewage effluent from expanded or new public wastewater treatment systems.
- Continue the expansion of County Wastewater Treatment Facilities to serve the coastal and inland bays area.
- Utilize the results of the Source Water Assessment to protect the groundwater resources in Sussex County.





LEGEND		
$\square$	Municipality	
	Municipal Water Systems	
	Investor Owned Water Service Area	
	Potential Future Public Water System	
	Water	
$\sim$	Major Roads	
$\sim$	Minor Roads	
$\sim$	Railroads	
$\sim$	Streams	

Henlopen Acres

> Rehoboth Beach

Dewey Beach

## ATLANTIC OCEAN

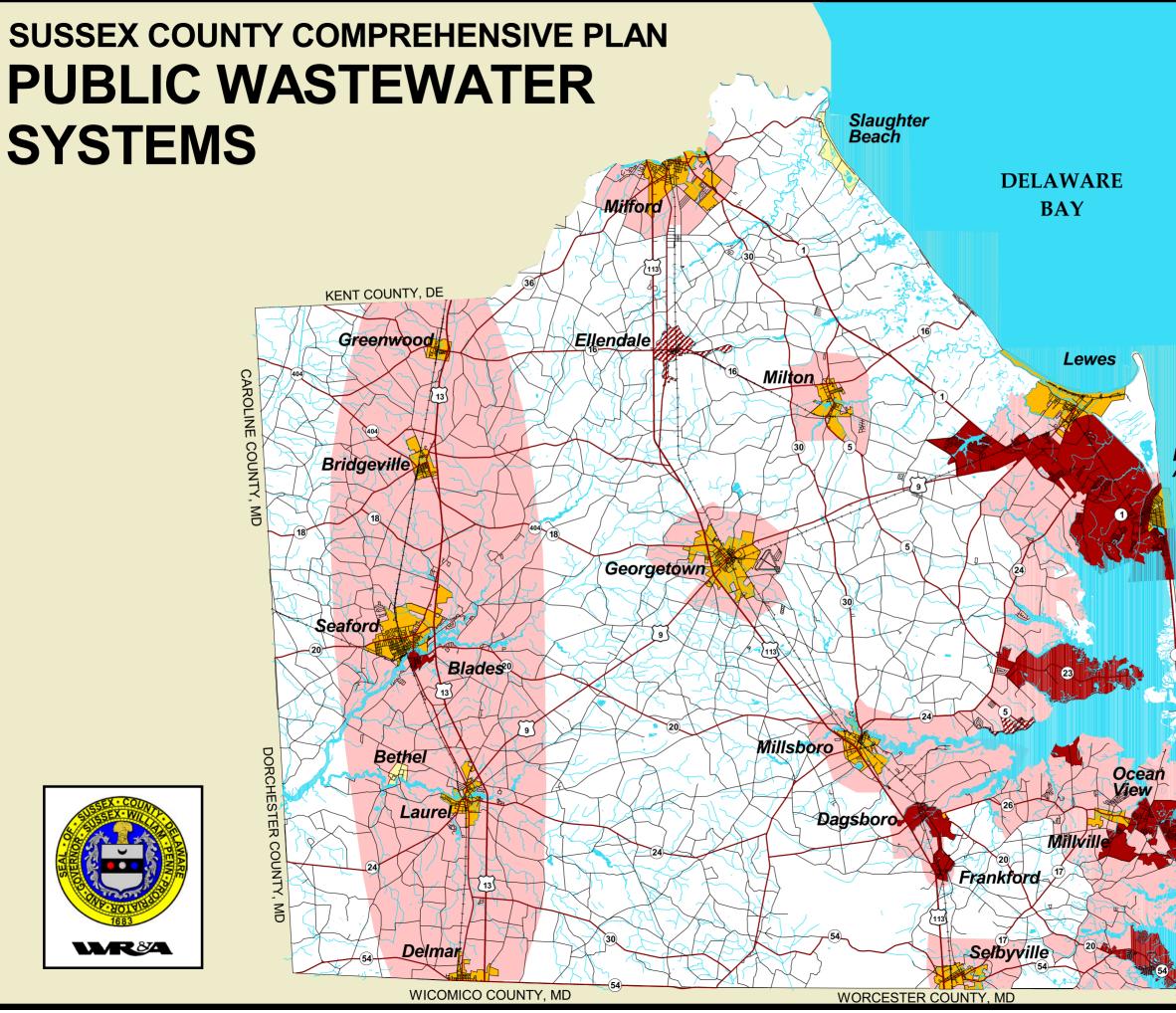
Bethany Beach







SOURCES: Delaware Department of Transportation Delaware Office of State Planning Coordination Delaware Department of Natural Resources and Environmental Control United States Geological Survey





LEGEND	
	Municipality
	Municipal Systems
	Existing Wastewater District
	Future Wastewater District*
	Study Area
	Water
$\sim$	Major Roads
$\sim$	Minor Roads
	Railroads
$\sim$	Streams
* Developer Estates - Os dan Nasla Millan Onasla	

\* Bayview Estates, Cedar Neck, Miller Creek, North Millville, Sea Country, and South Ocean View are also Future Wastewater Districts.

Henlopen Acres

> Rehoboth Beach

> > Dewey Beach

## ATLANTIC OCEAN

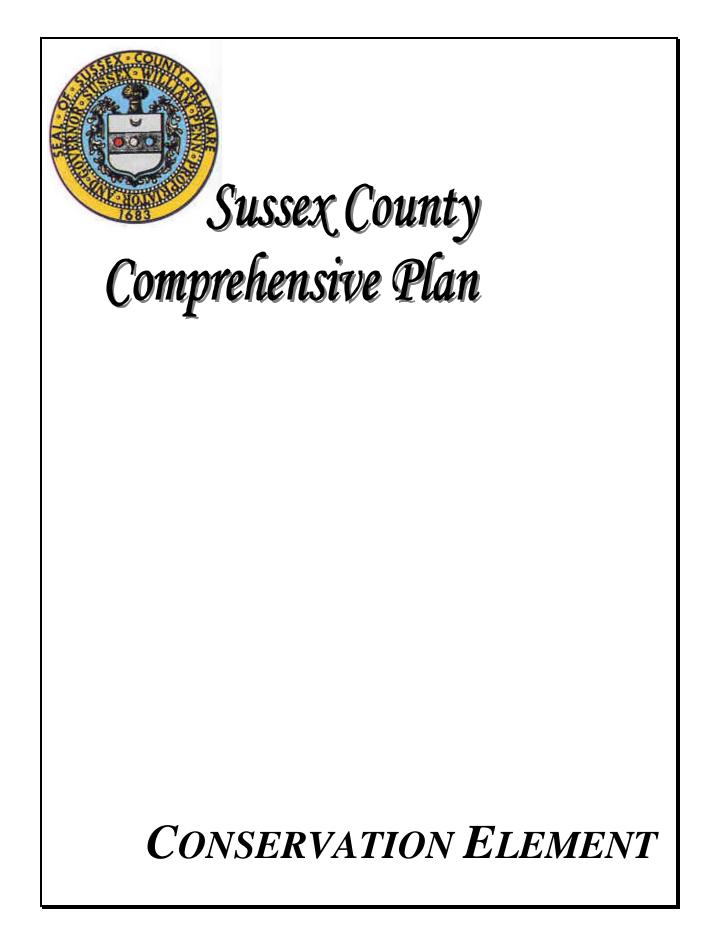
Bethany Beach

South Bethany





SOURCES: Delaware Department of Transportation Delaware Office of State Planning Coordination Delaware Department of Natural Resources and Environmental Control United States Geological Survey



## **CONSERVATION ELEMENT**

#### GOAL

#### PROTECT CRITICAL NATURAL RESOURCES BY DOCUMENTING THEIR LOCATIONS AND DEVELOPING GROWTH MANAGEMENT STRATEGIES THAT LIMIT DEVELOPMENT IN THESE AREAS

Parks, open space, natural areas, forests, wildlife habitats, greenways and waterways are all part of Delaware's quality of life. The State has been actively involved for over 70 years in land protection. The present State of Delaware Open Space Program began with the passage of the Delaware Land Protection Act in July 1990. This legislation provides for the administration of the program by the Department of Natural Resources and Environmental Control's Division of Parks and Recreation. It established a nine member Open Space Council that advises the Secretary of the Department about program implementation and financing, and recommends specific land purchases. Recommendations are based on a rating of natural. cultural. recreational and locational attributes. consideration of land use plans, and purchase options.



Sussex County is home to five State parks: Cape Henlopen, Delaware Seashore, Holts Landing, Fenwick Island, and Trap Pond.

In addition to the State parks, The Prime Hook National Wildlife Refuge is located about 10

miles north of Lewes. The more than 9,000-acre refuge protects critical wetlands, open and wooded



uplands, and estuarine areas along the Delaware Bay.

The Open Space Program coordinates the acquisition of State lands including parks, fish and wildlife areas, nature preserves, and cultural sites. Twenty State resource areas and specific stand-alone sites have been designated. These encompass existing protected public and private conservation lands and additions to these areas. These State resource areas include some of the finest examples of Delaware's diverse natural and cultural heritage including unspoiled wetlands, mature forests, rare plant and animal habitats, geological and archeological sites, and open space for recreation and greenway connectors. Collectively, these State resource areas and stand-alone sites comprise over 250.000 acres. representing 19% of Delaware's land base.

Entities such as State Fish and Wildlife, the Nature Conservancy, Delaware Wild Lands and others manage many acres of Sussex County's conservation areas.

The Delaware Division of Fish and Wildlife manages 17,750 acres of land in Sussex County, including 19 pond and access areas (three are in both Kent and Sussex Counties with actual access in Kent County), and eight State Wildlife Areas. Redden State Forest, managed by the Delaware Department of Agriculture, includes 9,528 acres of land.

The funding for the acquisition of open space properties comes from land and water conservation bonds, a portion of the realty transfer tax and legislative Program funds are used for appropriations. acquisition of properties, local grants, greenways, and planning. From July 1990 through May, 1996 over 13,175 acres were protected through fee simple purchases, bargain sales, donations, and conservation easements involving 101 projects.

The following provides a summary of the Open space Program activity in Sussex County. The summary identifies that 42,259 acres are currently protected and indicates an additional 44,441 acres to be included in the future. Figure 6, Conservation and Recreation Plan shows the State Resource Areas that are protected and those that are proposed to be protected.

<b>RESOURCE AREA</b>	<b>PROTECTED AREAS</b>	<b>PROPOSED ADDITION</b>	TOTAL ACREAGE
Prime Hook	11,668	14,678	26,346
Cape Henlopen	4,953	0	4,953
Inland Bays	6,632	4,181	10,813
Ellendale/Redden	5,453	15,898	21,351
Nanticoke River	2,805	4,965	7,770
James Branch	2,745	865	3,610
Great Cypress	9,188	2,670	11,858
Total	43,444	43,257	86,701

SUSSEX COUNTY RESOURCE AREAS

In addition to State funding, Sussex County adopted a new ordinance on April 23, 2002 that will provide an important new funding source for the acquisition of open space. This ordinance authorizes the County to pledge one million dollars in the current fiscal year budget to the Sussex County Land Foundation to be used for land acquisition, purchasing of development rights, or stewardship of the land. The County is also authorized to pledge an amount equal to ten percent of its net increase in the General Fund balance or other authorized amount, in each subsequent fiscal year. Contributions from others, including land developers, are expected to create a fund that will have a substantial impact in protecting the natural resources and open space in the County.

For over two decades Sussex County has been concerned for the Inland Bays and the need for a comprehensive strategy to conserve these vulnerable resources. The Inland Bays have been the subject of numerous scientific and technical studies created to measure their current environmental status and to determine trends. The findings of these studies have contributed in large part to the development of a voluntary Comprehensive Conservation and Management Plan (CCMP) designed to limit additional detrimental effects and to reverse current adverse trends in water quality and living resources. The CCMP encourages all residents and visitors to undertake greater practices to return the Inland Bays to a healthy condition. Continued positive improvement will be required if the Inland Bays are to return to a desirable condition. Although much has been accomplished, further work is required

to improve the environment in the Inland Bays watershed. As the population in the watershed grows, there is an increasing need to plan for wastewater systems and shoreline preservation. The viability and growth of the agricultural industry presents new challenges for continuing the reduction of nutrients from these operations. The Center for the Inland Bays is carrying on this work through the CCMP implementation process. The major Action Plans of the CCMP include: Education and Outreach: Agricultural Sources; Industrial, Municipal, and Septic Systems; Land Use; and Habitat Protection.

The following are key tactics from the Action Plans related to land use.

- Manage and Plant forest/vegetated buffers
- Tie new and existing development into appropriate sewage treatment infrastructure
- Require environmentally sensitive development
- Create a Resource Protection Management Plan
- Develop Sussex County Habitat Protection ordinance
- Establish a shoreline buildingsetback line
- Expand public land acquisition, protection and access
- Focus farmland preservation activities in Inland Bays Watershed

The Nanticoke River watershed is the largest within Delaware, occupying approximately one-fifth of the State. Recent changes in the watershed have prompted initiatives at the State and local levels to address issues water quality, concerning land use. agricultural practices, and land preservation. For several years DNREC has monitored the Nanticoke River. Through the Department's Assessment Branch. Watershed the Nanticoke River watershed preservation initiative began a program of analyzing issues and working with local citizens to establish a direction that would be both positive and meaningful.

The Nanticoke River watershed preservation initiative has evolved into the formation of citizen action groups and the State's first local land trust. Private and public land protection efforts, led by the Delaware Office of The Nature Conservancy, are becoming increasingly focused on the watershed. These Delaware initiatives are being shared by similar efforts in the Maryland Nanticoke River watershed, necessitating the coordination of efforts. Land protection efforts are currently lacking technical guidance to enable an approach that focuses on management on a watershed Therefore, riparian basis. wetland for protection strategies Delaware's Nanticoke River watershed are being prepared to establish a watershed approach for coordinating and achieving habitat protection and water quality objectives.

The primary objective of the project is to develop a land protection strategy for riparian wetlands that will prioritize areas requiring permanent protection within the Delaware portion of the Nanticoke River watershed including its major tributaries. Wetlands provide food and habitat for an abundance and diversity of life not rivaled by most other types of environments. Wetlands include swamps, marshes, bogs and similar areas. All wetlands have value, although highly variable. Productivity in wetlands is measured in terms of living things. A tidal marsh does not yield its crop directly to the people, but its yield is reflected in the abundance of finfish, shellfish and waterfowl. Wetlands provide food and habitat for an abundance of animal life, are breeding, spawning, feeding, cover

and nursery areas for fish, and are important nesting, migrating and wintering areas for waterfowl.

In 1998, the Department of Natural Resources and Environmental Control established a total maximum daily load (TMDL) for the main stems of the Nanticoke River and Broad Creek calling for 30% reduction in nitrogen and a 50% reduction in phosphorous. A tributary action team is currently working with the Department to develop a pollution control strategy to reduce nutrient loadings to meet those targets.

Wetlands also provide several direct benefits to people. They serve as buffer areas, which protect the shoreline from erosion by waves and moderate storm surges. Wetlands act as natural water storage areas during floods and storms by retaining high waters and gradually releasing them, thereby reducing damaging effects. Wetlands, especially seasonally inundated freshwater wetlands, may serve as groundwater recharge areas where rain and surface water infiltrate to underlying aquifers. Wetlands also purify water, not only by filtering and removing pollutants, but also by assimilating and recycling them. All these public values depend directly on the presence of healthy wetlands. Despite the advantages provided by wetlands to both the natural and human environments, they too often are considered unimportant areas, to be filled or drained rather than conserved. Thus laws have been enacted to require permits for work in wetlands.

The amenities and constraints of the natural environment play a significant role in directing growth. The desire to lie adjacent to natural amenities, especially water features, promises to dictate the future need and location of development activities in

Sussex County. The past and projected trends in population distribution, suggest that the major concentrations of population have been, and will continue to be, along the Atlantic coast, Inland Bays, Nanticoke River. and adjacent to the major municipalities. In addition, the same general areas will provide the highest distribution of employment opportunities. These trends indicate that these areas are the most desirable places for people to live within Sussex County either through individual preference of living environment, or through other economic or social needs.

Managing the environment will be more difficult in the future with projections for population, and the need for economic growth, indicating that stresses on the environment will increase. The need to enforce existing environmental protection measures and institute new programs to protect critical natural resources will require greater coordination and cooperation among all levels of government and the private sector. Particularly important will be the role of the county and municipalities in directing land use, and planning for public infrastructure and services.

A prime environmental concern in Sussex County has been to maintain and improve the environmental quality of the Inland Bays and the Nanticoke River. Intensive water quality monitoring performed by the State of Delaware, the federal government, various university and private researchers and citizen monitoring groups has shown that the Indian River, Indian River Bay and Rehoboth Bay are highly enriched with the nutrients nitrogen and phosphorous. Although nutrients are essential elements for plants and animals, their presence in excessive amounts causes undesirable conditions. Symptoms of nutrient enrichment in the Inland Bays have included

excessive algae growth, phytoplankton blooms, large daily swings in dissolved oxygen levels, loss of submerged aquatic vegetation, and fish kills. The most recent study of the sources of nitrogen indicates agriculture contributes 49% of the total to Rehoboth Bay; 79.9% to Little Assawoman Bay; 57.5% to Indian River Bay; and 44.6% to Indian River Bay.

Central wastewater systems and on-site wastewater systems, including commercial and industrial contribute 19.7% to Rehoboth Bay, 9.2% to the Little Assawoman Bay and 23.5% to Indian River Bay. Rainfall and atmospheric deposition accounts for 28%, 10.8% and 11.9% in each bay. Similarly, recent studies indicate that agriculture contributes 82% of the phosphorous import and urban development contributes 18%.

The Division of Water Resources adopted Regulations for Total Maximum Daily Loads, effective December 10, 1998, which among other things proposes the following:

- 1. Reduction by 85% of the nitrogen loading and 65% of the phosphorous loading from non-point sources for tributaries to the upper Indian River.
- Reduction by 40% 2. of the nitrogen loading and 40% of the phosphorous loading from all remaining tributaries to Indian River, Indian River Bay, and Rehoboth Bay. Implementation of the TMDL Regulations will be achieved through development and implementation of a "Pollution Control Strategy".

## CONSERVATION GROWTH MANAGEMENT Strategies

The Land Use Plan's Growth Management Districts support maintaining and enhancing

Sussex County's natural amenities. The Plan's Growth Areas act to concentrate development in and adjacent to existing municipalities and rural communities, and away from the majority of the County's Resource Protection Natural and The Growth Area Agricultural Areas. guidelines will provide the necessary infrastructure to protect the sensitive natural areas they include. The Natural Resource Protection and Agricultural Areas preserve the integrity of sensitive natural areas and farm land through overall low density development guidelines; and will maintain a high percentage of open space.

The 1988 Coastal Sussex Land Use Plan and the 1990 Western Sussex Land Use Plan established a Conservation District with environmental protection criteria to assist in resource protection. The Conservation Districts have resulted in the following regulations contained in the Zoning Ordinance:

"Conservation zones. [Added 4-4-1989 by Ord. No. 575]

[Amended 10-20-1992 by Ord. No. 861] A onethousand-foot conservation zone is hereby established in the land area encompassed within the Coastal Sussex Land Use Plan of March 1988, and within the Western Sussex Land Use Plan of December 1990, being landward from the mean highwater or adjacent floodplains of tidal water bodies, rivers or their major tributaries, whichever is greater, with the following provisions:

- (1) Any lot created after the adoption of this section shall contain a minimum square area of one (1) acre and a minimum lot width of one hundred fifty (150) feet unless central water and sewer are provided.
- (2) Any lot created after the adoption of this section shall have a minimum frontage along any tidal water body, river or their major tributaries of one hundred fifty (150) feet.

(3) Any lot created after the adoption of this section which is served by central water and sewer systems may conform to the lot area requirements of the zoning district in which the lot is located, except the frontage required in Subsection B(2) above.

And

"Buffer zones for wetlands and tidal and perennial nontidal waters. [Added 7-19-1988 by Ord. No. 521]

A fifty-foot buffer zone is hereby established landward from the mean high water line of tidal waters, tidal tributary streams and tidal wetlands and from the ordinary high water line of perennial nontidal rivers and nontidal streams in Sussex County. [Amended 7-2-1991 by Ord. No. 774]

Excluded from the buffer zone designation are farm ponds, tax ditches and other man-made bodies of water where these waters are not located on or within perennial streams. A buffer zone shall not be required for agricultural drainage ditches if the adjacent agricultural lands is subject to a conservation farm plan established with the Sussex County Conservation District."

The publication entitled "Urban Riparian Buffers" dated January 2001 by Lawrence T. Pomatto states that, "buffer areas are project-specific, and depend on project objectives". For example, from the standpoint of:

- wildlife, Are there particular species to protect?
- engineering, Are there specific water volumes to attenuate?
- political, Are there particular economic impacts to consider?
- TMDL's, Are there particular nutrient reductions to effectuate?

Buffers are defined as a naturally vegetated area or areas established in native vegetation which are managed to protect aquatic, wetline shoreline and terrestrial environments from man-made disturbances. In the conservation area, the buffer is a continuous area located immediately landward of tidal water (measured from the mean high-water line) and tidal wetlands. With certain exceptions, new development activities, including clearing of natural vegetation, erection of structures. construction of new roads, parking areas or impervious surfaces, other and the placement of private sewage disposal systems are not permitted in the buffer. Exceptions can include clearing for: providing access to private piers, construction of shore erosion protection devices, personal use, providing the buffer function is not impaired and the trees are replaced, etc.

Division of Soil The and Water Conservation is developing site-specific riparian buffer designs that specify widths, vegetation types and distribution and land Until such time as conditions. the information becomes available and the current ordinance amended, the requirement for a 50' buffer will remain in effect.

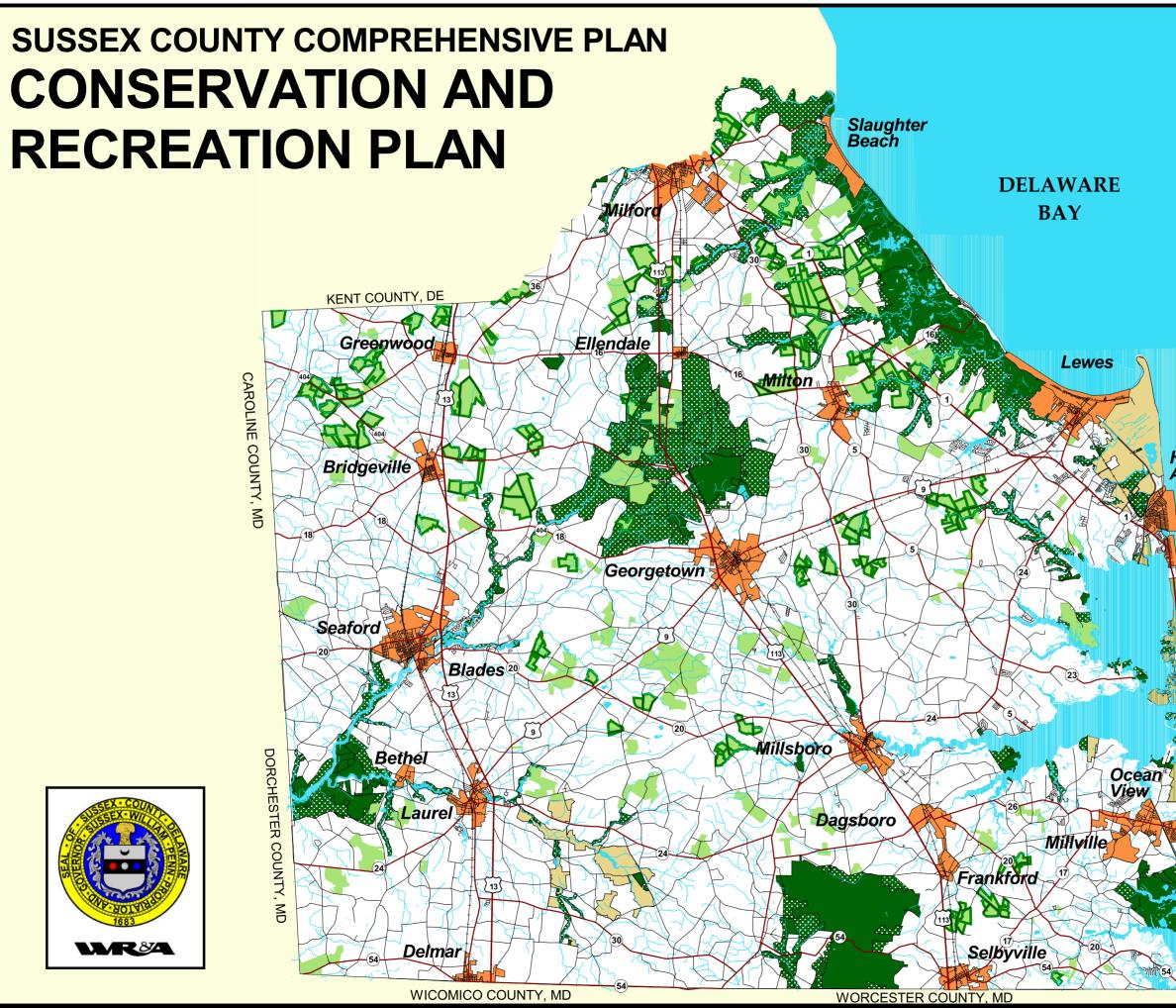
## Specific Conservation Growth Management Strategies include:

- Encourage land developers to contribute to the Land Foundation.
- The State should continue to fund the acquisition of land in designated State Resource Areas.
- The County should review all development proposals for consistency with the goals, strategies and action plans of the Delaware Inland Bays Comprehensive Conservation and Management Plan.
- Support DNREC, in cooperation with concerned citizen groups, in implementing a Pollution Control Strategy for the Inland Bays and the Nanticoke Watershed.
- Adopt an overlay zone for the Environmentally Sensitive Developing Area.
- All development proposals should conform to the Conservation District requirements.
- Encourage environmentally sensitive development and economic growth in designated Growth Areas through the use of flexible and innovative development regulations. Discourage random-pattern development to

enhance sensitive areas and other environmental resource protection programs in rural areas; and direct development away from sensitive areas, thus avoiding impacts.

- Utilize the natural amenities of Sussex County for appropriate recreational uses that stimulate economic development in an environmentally sensitive manner.
- Preserve and protect the environment through sensitive land use decisions, particularly the placement of roads, sewers, and other major infrastructure that can pose serious environmental consequences.
- Support the establishment of a greenways system which utilizes schools, parks, wildlife habitat areas, river and stream corridors, wetlands, floodplains, historic sites, business parks, urban sidewalks, abandoned rail lines, roads, beach areas, and vacant land. Ensure that greenways provide benefits like safe pedestrian, bicycling and equestrian routes for recreationists and commuters; and natural wildlife corridors and biological reserves.
- Support State water resource conservation initiatives through land use controls and programs to include: Groundwater aquifer recharge area protection; Water saving plumbing devices in new buildings and in those being rehabilitated; Improve programs to monitor and control toxic chemicals; And assure availability of water through public centralized water systems where feasible.
- Evaluate increasing the 50' buffer zone around tidal wetlands to determine whether changes are necessary to implement a "Pollution Control Strategy".

- Evaluate the necessity to create a 25' buffer zone around non-tidal wetlands and the effect on property owners.
- Consider how the County can assist in protecting resources contained within State Resource Areas, through regulation, purchase or other means.



# **FIGURE 6**



Henlopen Acres

Rehoboth Beach

> Dewey Beach

## ATLANTIC OCEAN

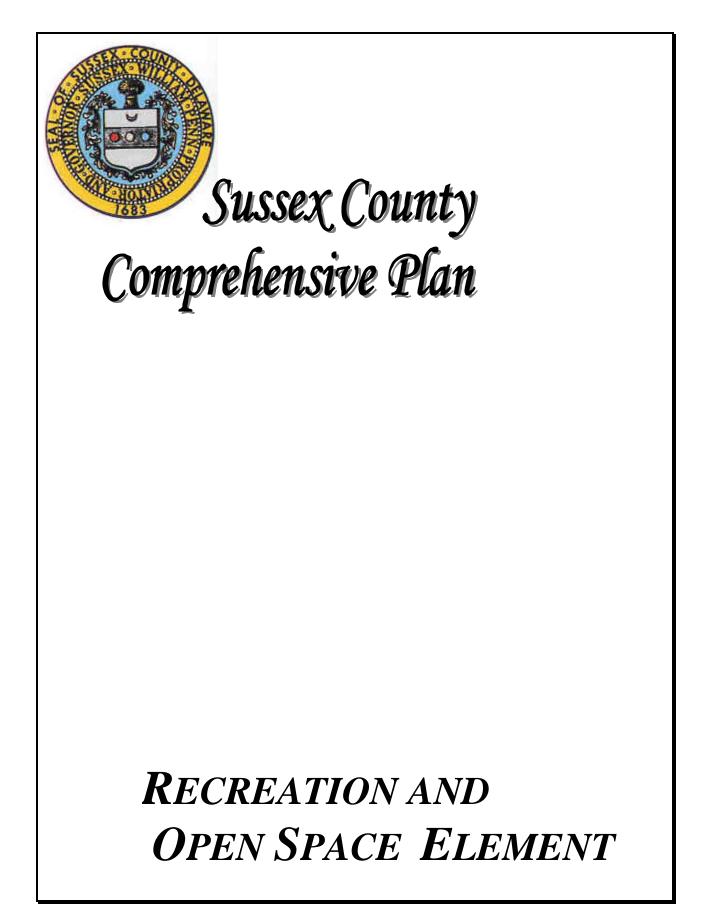
Bethany Beach







SOURCES: Delaware Department of Transportation Delaware Office of State Planning Coordination Delaware Department of Natural Resources and Environmental Control United States Geological Survey



## **RECREATION AND OPEN SPACE ELEMENT**

#### GOAL

PROVIDE PASSIVE AND ACTIVE RECREATIONAL FACILITIES FOR THE BENEFIT OF SUSSEX COUNTY'S RESIDENTS AND VISITORS

Sussex County does not have a parks department and does not directly provide recreational facilities; however, residents have a variety of opportunities available to them. Sussex County is home to five state parks.

• Cape Henlopen State Park in Lewes, where the Atlantic Ocean meets the Delaware Bay, is a 5,000-acre area with guarded beaches, nature trail, World War II observation tower, family campground and quarter-mile fishing pier onto the Delaware Bay.

• Delaware Seashore State Park, between Dewey Beach and Bethany Beach has six miles of ocean and bay shoreline for fishing, swimming and sunbathing. It boasts a 250slip marina with head boats and a boat ramp. Seasonal hunting is permitted in some areas of the park.

• Holts Landing State Park originally a family farm sold to the state highway department in 1957, is a 203-acre area located on the southern shore of the Indian River Bay in Millville. Recreational facilities include tree-shaded picnic areas with grills and an adjacent playground, two ball fields and a boat-launching ramp for small motorized boats, sailboats and windsurfing boards.

• Fenwick Island State Park, situated between Bethany Beach to the north and Fenwick Island to the south, is Delaware's southernmost park. Little Assawoman Bay forms the western edge of this park, providing many opportunities for salt-water recreation. With 344 acres of ocean and bay shoreline for swimming, surfing and surf fishing, this park provides lifeguards during peak season and allows seasonal hunting in some areas of the park.

• Trap Pond State Park, four miles east of Laurel off Del. 24, offers hiking, fishing, swimming and camping activities as well as the simple enjoyment of a picnic amid abundant wildlife, wild flowers and bald cypress trees which grace these wetlands.

In addition, many municipalities manage parks and provide recreation programs for their residents.

The Delaware Statewide Comprehensive Outdoor Recreation Plan, (SCORP) provided an overview of the public and non-profit recreational facilities available to Sussex County residents and visitors. Private recreational facilities are not included in the SCORP; however, it is commonly known that the private sector provides many active recreational opportunities for children and adults. The SCORP reported the following summarv of public non-profit and recreational facilities in Sussex County:

<b>R</b> ECREATION FACILITIES	
LAND ACREAGE	54,081
Tot Lots	27
Playgrounds	58
Basketball Court	41
Baseball Fields	58
Softball Fields	39
Little League Fields	28
Football Fields	22
Soccer Fields	16
Tennis Courts	82
Swimming Pools	6
Mile of Trails	
Camping Units	39
Golf (18 Holes)	
Frisbee Golf (18 Holes)	
Volleyball Courts	39
Track	13
Hunting Acres	
Picnic Tables	
Piers	7
Boat Ramps	59

The most recent survey of Delaware Resident's Outdoor Recreation Use Patterns and Needs was for Delaware Department of Natural Resources and Environmental Control, Division of Parks and Recreation in June, 2002. This survey entailed a telephone survey of 1,809 Delaware residents. Because of the seasonal variation in the population of Sussex County, the timing of the survey could affect the results. The State was divided into five regions with western Sussex County being region four and eastern Sussex County being region five. Questions were asked regarding the following:

• Importance of and Participation in Outdoor Recreation

• A majority of respondents from each region (ranging from 51% to 70%) indicated that outdoor recreation was very important to them personally. Region 5 in Sussex County had a high percentage of 94%. Region 4 had the highest percentage (13%) saying outdoor recreation was not at all important.

- o Region 5 had one of the highest rates of anticipated participation in roller blading/roller skating and swimming at the beach. Region 5 had the highest percentage anticipated of participation boating. for Region 5 had the lowest rate of anticipated participation in baseball/softball and basketball.
- Ratings of Facilities
  - Strong majority of respondents (71%) rated the upkeep of parks and outdoor recreation areas as excellent or good. Region 5 rated crime prevention at parks and outdoor recreation facilities as excellent or good.
- Preferred Recreation Locations/Facilities
  - 0 The top three outdoor recreation areas were Cape Henlopen State Park, Lums Pond State Park. and Delcastle Recreation Area for those who indicated that they planned to participate in outdoor activities.
  - A slight majority (52%) of those respondents who indicated that they participate or plan to participate in any outdoor activity indicated that the facility they most frequently visit is less than 10 miles from their home.
- Reasons for Participating in Outdoor Recreation
  - When asked what would encourage respondents to participate more often in

outdoor recreation the top answer was "more outdoor facilities and opportunities close to where you live", 52% overall.

- Funding and Policy-Making Priorities
  - o More than three-quarters of the respondents of the activities said the that following activities were very somewhat important or playgrounds for priorities: hiking/walking children. trails, biking paths, paved indoor walkways and recreation facilities.
  - Funding for public parks was the item at the top of the list.

A 1994 survey conducted by Sussex County showed that residents were not willing to pay a tax increase to establish a County Parks Department to provide additional recreational facilities. Therefore, the County has no plans to create a parks department in the near future, however, the County Council recently adopted an ordinance to provide funds for "protecting, improving, enhancing and preserving the natural resources and open space in Sussex County". The ordinance authorized the County Council to pledge one million dollars to the Sussex County Land Foundation for the current fiscal year and ten percent of its net increase in the General Funds balance in each subsequent fiscal year. These funds will be combined with contributions from public or private sources acquisition, purchasing for land of development rights and stewardship of the land

There is one area where recreational resources are clearly deficient. The substantial increase in seasonal population and tourism has exceeded the beach capacity in the coastal towns and the Delaware Seashore State Park. Coupled with the continued erosion along the ocean beaches, they are greatly overcrowded. The State should continue their program of beach replenishment and open additional areas for parking and use of beaches in the Delaware Seashore State Park.

Although there is no documented shortage of recreational opportunities in Sussex County, for the permanent population, greenway systems could be an important and practical addition to the County's recreational opportunities. A greenways system would integrate and improve access to public and private recreation sites; and make traveling between destinations educational, healthy, and enjoyable. Several of the municipalities in Sussex County have active greenway programs in various stages of development.

The municipalities include:

Bethany Beach Laurel	Pedestrian and Bicyclists Pathway System Broad Creek Greenway
Lewes	Lewes Greenways
Milford	Mispillion Riverwalk
Milton	Governor's Walk
Seaford	Riverfront Walkway

In addition, active greenway programs in Sussex County include the Federal American Discovery Trail, and the State Assawoman Canal, Coastal Heritage, Mispillion River and Nanticoke River Greenways. These greenway programs will directly provide recreational opportunities as well as interconnect various recreational facilities further enhancing the total experience. In conjunction with the DelDOT proposed County bike trail system, many of Sussex County's residential, commercial, industrial and recreational centers will be linked by two

of the County's favorite pastimes, walking and bicycling.

Support of recreation in general, will be an important public policy issue in the future because the public sector manages, maintains and regulates the majority of the natural resources and the infrastructure required by both public and private sector recreation facilities. The future of recreation will be determined by the effective administration of natural recreational resources including parks, forests, wildlife preserves, beaches and the Inland Bays; and the provision of public infrastructure and services such as transportation, water and wastewater systems, police and fire protection, and emergency health care.

The future trends in recreation will impact various aspects of Sussex County's quality of life. Recreation will provide for both passive and active facilities and opportunities for residents and visitors. Passive recreation opportunities will be a result of expanding the natural amenities of Sussex County, and utilizing these areas for development in a manner that is environmentally sensitive. Recreation will have a major impact on commercial and attracting residential development to Sussex County and will become part of these trends in development. Active recreation will be more easily expanded obtainable through facilities provided by commercial and residential developments, through and better organization and use of these facilities.

#### **RECREATION AND OPEN SPACE GROWTH MANAGEMENT STRATEGIES**

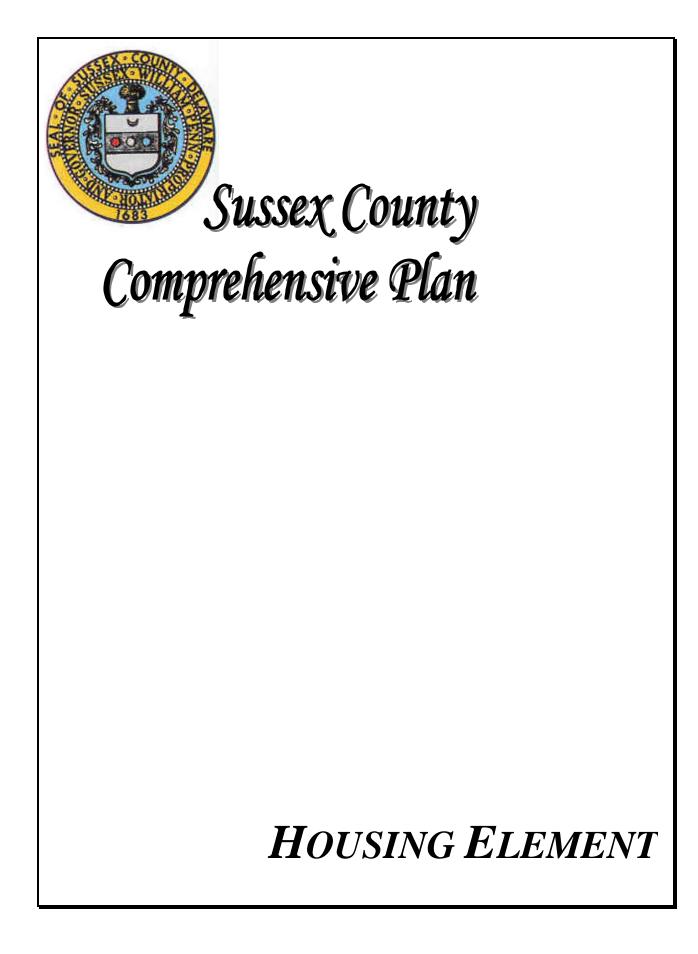
The Land Use Plan's Growth Management Districts support maintaining and enhancing Sussex County's recreational opportunities in many ways. The Plan's Growth Areas act to concentrate development in and adjacent to

existing municipalities Rural and Communities, and away from the majority of the County's Natural Resource Protection and Agricultural Areas. The Growth Area guidelines will provide the necessary infrastructure and services to support recreational facilities, as well as protect the sensitive natural areas they include. The Growth Area development guidelines also allow for density and mixed-use development initiatives for projects which provide recreational facilities and open space. The Natural Resource Protection and Agricultural Areas preserve the integrity of sensitive natural areas and farmland through overall low-density development guidelines. These guidelines will maintain a high percentage of open space, and offer opportunities for future of recreational facilities and greenways systems. Specific Recreation and Open Space Growth Management Strategies include:

- Revise Zoning and Subdivision regulations to require the provision of active and passive recreational facilities and quality open space for large-scale developments.
- Coordinate development proposals with State Recreation and Open Space Plans.
- Encourage focusing State funding for active recreation projects within municipalities and adjacent Growth Areas
- Coordinate the development and maintenance of recreation and open space opportunities for resident and visitor enjoyment, and economic growth, in a manner that ensures environmental conservation.
- Coordinate efforts to enhance resident and visitor access to recreation and open space, while ensuring that resident mobility needs are maintained.
- The County, DNREC and DelDOT should work together to increase the

proposed greenways system to a countywide network interconnecting with state and regional systems; and linking all municipalities and major residential areas to retail and employment centers, recreational areas, and multimodal transportation facilities.

- Coordinate the planning of water and wastewater systems to enhance existing and future recreational opportunities, while protecting the environment by directing growth away from sensitive natural areas.
- Coordinate and plan for the preservation of critical natural and cultural resources; and promote the use of these amenities for appropriate economic development in a sensitive manner.
- Encourage major residential developments to provide on-site recreation facilities that interconnect with regional recreation and open space opportunities.
- Sussex County should coordinate all programs relating to recreation and open space to ensure that resident needs and desires are satisfied; and that funding for programs is based on the priorities established by the Sussex County residents.
- Encourage DNREC to support close-tohome community and neighborhood leisure and active recreational facilities in existing residential developments that are convenient for use.
- Encourage greater cooperation and coordination among all recreation providers in programming and joint-use of facilities and resources.
- Continue the beach replenishment program
- Open additional areas in the Delaware Seashore State Park for parking and beach uses.



#### HOUSING ELEMENT

#### GOAL PROVIDE A COMPLETE RANGE OF HOUSING OPPORTUNITIES FOR ALL RESIDENTS OF SUSSEX COUNTY

Attracted by low property tax rates and a high quality of life, a second home and retirement market originating from outside Sussex County has placed increased pressure on housing prices and availability. More affluent households from outside the county are competing for housing units resulting in higher prices and lower availability of affordable units. Local employment growth is not providing the incomes necessary to allow many of the local working households to compete with second home buyers and investors for housing units. For industry to continue to compete with other states, additional low and moderate income housing is necessary.

Data from the U.S. 2000 Census shows the Income and Poverty Status in Sussex County.

Тарге 28

TABLE 20					
INCOME AND I	INCOME AND POVERTY STATUS				
	DELAWARE	SUSSEX COUNTY			
Median Household					
Income	\$47,381	\$39,208			
Median Family					
Income	\$55,257	\$45,203			
Total Families	205,776	44,090			
Below Poverty Level	13,306	3,403			
Percent Below					
Poverty Level	6.5	7.7			

The "Sussex Housing Group" is a combination of state agencies, county organizations and industry representatives which was formed to identify fair and affordable housing issues and to help the Sussex community to address the issues.

Their draft report states that:

- The supply of rental housing has been far outpaced by demand.
- Accordingly, rents have become exorbitant in some parts of the County.
- Families and single workers seeking reasonable rental units are desperate.

For example, the average poultry worker in the County makes \$16,000 to \$17,000 per year. Paying more than 35% of this income for housing would have a maximum allowable rent of \$495 per month. The two bedroom Fair Market Rent in Sussex County is \$624. The poultry industry has over 5,000 employees in the County. Most of these employees are living in the incorporated municipalities.

Manufactured housing has become an important way for Delaware residents to meet their housing needs in an affordable way. Data from the U.S. 2000 Census shows that Sussex County has 23,817 manufactured housing units comprising 25.6 percent of the total housing units in the County.

The age of housing units in Sussex County is shown on Table 29. The data indicates that 29% of the structures are over forty years old. This would be a problem for that portion of the units which were manufactured housing.

Table 29	
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AGE OF HOUSING UNITS					
Year Structure Built Number Percent					
Total housing units	93,070	100			
1999 to March 2000	4,123	4.4			
1995 to 1998	10,941	11.8			
1990 to 1994	11,832	12.7			
1980 to 1989	22,089	23.7			
1970 to 1979	17,032	18.3			
1960 to 1969	9,108	9.8			
1940 to 1959	10,283	11.0			
1930 or earlier	7,662	8.2			

The most recent Statewide Housing Needs Assessment, shown in the following table estimates that there are 3,506 substandard housing units in Sussex County. The Assessment further states that there are an additional 2,121 households that are at risk or living in substandard units.

SUBSTANDARD AND AT RISK UNITS BY CENSUS SUBDIVISION TABLE 30

I ADLE 30			
SUBDIVISIONS	SUB	RISK	TOTAL
Milford South	427	246	673
Bridgeville- Greenwood	253	129	392
Seaford	478	320	798
Georgetown	187	180	367
Millsboro	507	219	726
Milton	210	114	324
Lewes	419	303	723
Selbyville-Frankford	490	274	764
Laurel-Delmar	523	336	859
TOTAL	3,504	2,121	5,626

Information gained from the public workshops indicates that a majority of residents believe rehabilitating substandard dwelling units is preferable over relocating their residents. It should be noted that there are 2,700 elderly households which will require assistance in order for them to continue aging in place. To accomplish this objective of rehabilitating housing units, Sussex County has established the Community Development and Housing Division. Their primary responsibility to provide annual grants and loans to finance housing rehabilitations, community facilities, and public works which serve low to moderate income residents in Sussex County. The 2003 budget estimates that this division will manage \$2,281,681 in housing assistance from four different sources of loans and grants in FY02 as follows:

Community Development	
Block Grant	\$1,068,090
HUD Disaster Relief Initiative	\$962,063
FMHA Housing	
Preservation Grant	\$48,000
Delaware State Housing	
Loan Program	\$203,525

Low and Moderate income limits are related to family size. For example, the low-income limit for a family of four would be \$24,850 and the moderate-income limit would be \$39,750. Over the last eight years, the Division has managed grants and loans totaling \$12,137,693, an average of \$1,517,212 per year. The total number of rehabilitation contract managed by the division was 960. The goals of the Division for the current fiscal year are as follows:

- Administer housing code complaints for rental tenants
- Continue to implement and manage special grants, such as the Housing Rehabilitation Loan Program and Disaster Relief Initiative
- Assist over 900 low- to moderateincome citizens with grant funds for housing rehabilitation, code compliance, and infrastructure improvements
- Rehabilitation of 100 homes using Community Development Block

Grant funding, Housing Preservation Grant funding, and the Housing Rehabilitation Loan Program

• Encourage the restoration of Sussex County's housing stock, promote economic stimulation, and provide decent housing for all residents of Sussex County

While improvement of existing housing is the preferred alternative, it will be necessary to plan for areas of multi-family dwelling units to accommodate the housing needs of low-income and elderly residents. These developments will be located where public infrastructure and services are available. To ensure that all needs are satisfied, public and private housing development is required.

The Division of Historical and Cultural Affairs suggests the rehabilitation and reuse of historically significant housing units, and/or the adaptive reuse of other historic structure for housing should be encouraged through tax incentives or grants. If successfully marketed. a rehabilitation program would help to preserve Sussex County's historical and cultural past; and assist in obtaining the desires concerning housing needs, economic development, and various aspects of land preservation. А housing rehabilitation program within Sussex County is necessary. However, to satisfy the needs of all income groups, the program must extend beyond historical and cultural preservation; and address the issues of providing adequate housing for all Sussex County residents.

#### HOUSING GROWTH MANAGEMENT Strategies

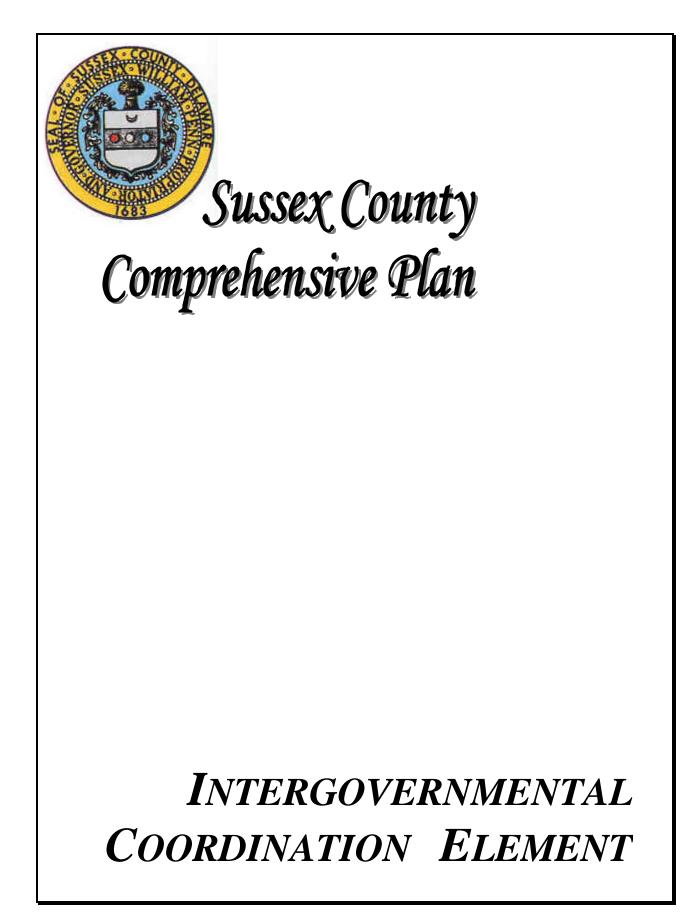
Substandard and at risk households are relatively dispersed throughout Sussex County. The Land Use Plan's Growth Areas incorporate many of the higher concentrations of these households. Therefore, many of these households should become part of the efforts to concentrate public and private investment in and adjacent to existing developed areas. In addition, the Land Use Plan's Growth Management Districts provide ample opportunity for a range of housing options within the municipalities, and Town Center. Development Community and Rural Districts.

Historically, upper-income and retirement communities have developed in the coastal area while other-income housing is located in the municipalities and dispersed throughout the County. The major housing challenges are to develop a viable multi-family production program to create low-income rental housing units, create more home ownership opportunities for first-time buyers by expanding the availability of belowmedian priced homes, and increase housing rehabilitation activity. Approximately onehalf of all building permits issued in the County are for manufactured housing meeting the HUD Code. This type of housing could play a significant role in meeting the demand for affordable housing.

Specific Housing Growth Management Strategies include:

- Utilize intergovernmental coordination to develop consistent public investment and taxation policies, and land use growth management strategies, which provide the greatest range of housing opportunities for all resident income levels. These housing opportunities should not be located on isolated sites.
- Promote mixed-use cluster development where public water and wastewater systems are provided.

- Encourage rehabilitation and reuse of historically significant housing units or adaptive reuse of other historic structures for housing through grants.
- Encourage the Federal Government to increase funding for rehabilitating homes owned or rented by low income families to meet the State Housing Code.
- Provide housing opportunities in and adjacent to incorporated towns with existing public infrastructure to allow for multi-family developments.
- Utilize various low and moderate income home loan and housing subsidy programs.



#### **INTERGOVERNMENTAL COORDINATION ELEMENT**

GOAL

ENSURE COORDINATION BETWEEN FEDERAL, STATE, COUNTY AND MUNICIPAL AGENCIES IN ESTABLISHING AND IMPLEMENTING GROWTH MANAGEMENT POLICIES

The State of Delaware Quality of Life Act required that the Sussex County Comprehensive Plan consider and adopt the necessary planning provisions which are compatible with its surrounding governmental jurisdictions. Sussex County is bordered by Kent County, Delaware and the State of Maryland Counties of Caroline, Dorchester, Wicomico and Worcester. The purpose of the Quality of Life Act's requirement becomes obvious through an objective land use planning review of the Delmarva Peninsula as a whole. The needs, desires and hardships of the Delmarva Peninsula's residents are not separated by County or State boundaries. They are shared by its residents in a holistic manner because of the Delmarva Peninsula's history of development, and its potential for the future.

Sussex County is impacted by numerous forces, which dictate its future. Federal funds, often in combination with State or local expenditures, provide the means to obtain the public infrastructure and services for the maintenance and enhancement of Sussex County's quality of life. It is critical that intergovernmental coordination is ensured to encourage economic expansion and to direct future growth to appropriate areas. Such development and economic growth often have transportation, impacts on water and wastewater, environmental and other areas of concern. For this reason, it is necessary that growth management strategies and policies promote and encourage communication, cooperation and coordination among all parties involved.

Potential policy and regulatory conflicts should be identified and addressed as an integral part of the planning process. As intergovernmental agencies collaborate on issues of mutual interest they will become more aware of one another's needs and priorities.

It is particularly important to coordinate planning and zoning decisions in the Town Centers and surrounding areas. Development in these areas will impact the existing municipalities as previously discussed in this Plan.

Sussex County has a "Memorandum of Understanding" with the incorporated towns which contains the following:

#### Delineation of the Intergovernmental Coordination Zone:

- 1. The zone shall include the area within one mile surrounding the incorporated boundary line of each municipality where a contiguous Development District has been created in the County Comprehensive Plan, provided that an alternative boundary can be established through negotiation with each municipality.
- Intergovernmental Where the 2. of Zone two or more municipalities overlap, the boundary between them shall be a line connecting the midway points of the overlapping area unless the legislative bodies of the affected

municipalities and the County agree to another boundary line based upon existing or proposed patterns of development.

3. When an incorporated town annexes adjacent area, the new Intergovernmental Coordination Zone shall extend one mile from the new boundary line or in accordance with a new negotiated boundary.

#### Municipal Review of Development Actions

- 1. Land Use actions subject to review with the Intergovernmental Coordination Zone will include the following:
  - a. Land use actions where the economic, social or environmental benefits or impacts will affect the municipality.
  - b. Proposed changes in zoning classification involving more than one acre.
  - c. Proposed subdivision involving more than ten lots or a subdivision with a density of more than one dwelling unit per acre.
  - d. Preliminary site plans for individual sites involving more than ten acres.

# Sussex County Review of Municipal Actions

1. Municipalities within the Intergovernmental Coordination Zone shall be required to notify Sussex County of petitions for proposed annexation within the Intergovernmental Zone at least twenty working days prior to final action is taken by the municipality.

2. Municipalities with a negotiated Intergovernmental Coordination Zone shall be required to notify Sussex County of possible zoning changes on undeveloped properties that have been annexed within the previous 10 years and share a common boundary with the County

#### **Coordination with State Agencies**

The Long Range Transportation Plan was developed as a joint project by the County and DelDOT. This cooperation continues with the State Route 1 Land Use/Transportation Study. The County also participated with DelDOT in the feasibility study for a new North/South Limited Access Highway in Sussex County and will continue to participate in the on-going detailed study.

The County will work closely with DelDOT to determine the route of this highway and begin protecting the right of way.

The County will also work with DNREC and the Office of State Planning Coordination in the development of the Environmentally Sensitive Developing Area overlay ordinance. The Office of State Planning Coordination will continue to be a partner with Sussex County in implementing the goals of the Comprehensive Plan.

Identification and solving the problem of failing on-site wastewater systems is an important issue to be addressed by the county and DNREC.

The County will work with the Delaware Economic Development Office and the Delaware Department of Agriculture to attract agricultural related industry and biotech industry.

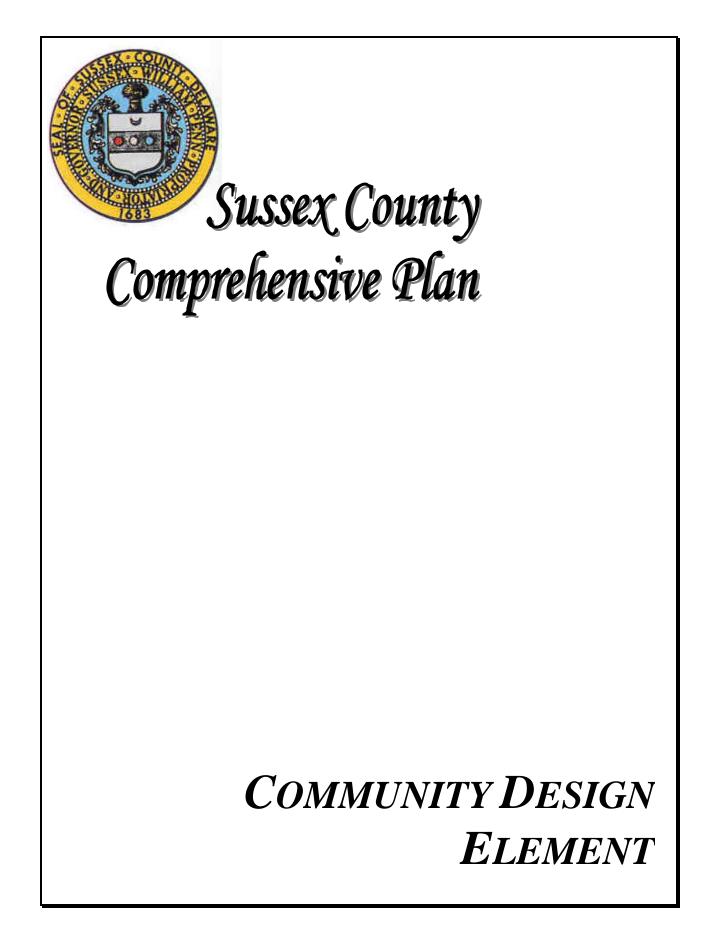
#### INTERGOVERNMENTAL COORDINATION IMPLEMENTATION STRATEGIES

Land Use District Guidelines such as those coordinating development adjacent to municipalities, existing as well as development along the County's border, should enhance the entire region's quality of In addition, the Land Use Districts life. provide guidance for coordinating future investments in all forms of public and private infrastructure and services. Specific Intergovernmental Coordination Growth Management Strategies include:

- Utilize the established Intergovernmental Coordination Zone for each Municipality.
- Encourage municipalities to adopt uniform ordinances for a Highway Corridor Overlay Zone.
- Coordinate County and Municipal economic development efforts.
- Recognize DelDOT's responsibility to regulate access management and corridor preservation.
- Make intergovernmental cooperation an integral part of planning by developing close working relationships with public agencies and private organizations in adjoining Maryland and Delaware counties, and at the state and federal levels.
- Explore opportunities for cooperating with adjacent counties to promote regional needs for community development financial assistance.
- Coordinate growth management strategies with adjoining counties to insure that zoning and subdivision regulations permit compatible development along boundaries.
- Coordinate county and municipal capital improvement programs to allow for more efficient provision of public infrastructure and services

throughout the county. County and municipal coordination for the provision of public infrastructures and services will alleviate unnecessary duplication of services.

- Coordinate state, county and municipal operating and capital budget priorities tied to growth management policies, which foster the redevelopment of communities.
- Evaluate the feasibility of a combined County/Municipal Wastewater Facility in western Sussex County.
- Coordinate economic development efforts in established Municipal Employment Centers.
- Determine the feasibility of using a cooperative Transfer of Development Rights program to preserve agriculture while increasing density in municipalities.
- Continue to participate in the State Route 1 Land Use/Transportation Study and the planning for the North/South Limited Access Highway.
- Work with the Office of State Planning Coordination and other state agencies to implement the Comprehensive Plan.
- Work with the Delaware Economic Development Office and the Delaware Department of Agriculture to keep agriculture as a viable and thriving industry through attracting agriculture and biotech industries to Sussex County and continuing to provide incentives to preserve prime agricultural land.



#### **COMMUNITY DESIGN ELEMENT**

#### GOAL

## **R**EVITALIZE THE COUNTY'S MUNICIPALITIES, COMMUNITIES AND ADJACENT AREAS IN A MANNER, WHICH ENCOURAGES PRIVATE INVESTMENT AND GROWTH

Sussex County's traditional development was characterized by compact, visually identifiable municipalities rural and communities situated among working farms and the natural environment. These developed areas often have town centers, individual neighborhoods with open space for recreation that maintain a sense of community identity.



Some of the typical visual components of traditional settlements are narrow roadways, street trees. sidewalks, front yard plantings various and architectural styles. Normally they have spaced

structures on lots narrower than those in current subdivision layouts. Traffic is controlled and managed through a variety of devices including street width and discontinuous grid patterns. Older municipalities and communities in Sussex County are typical examples of this pattern of development.

Today, many subdivision and zoning regulations make growth in and adjacent to municipalities based on traditional patterns difficult or impossible. In recent years, large-lot subdivisions have become the norm. This has resulted from individual desires for more private space, and public policy desires preserve open space. Large-lot to subdivisions, as well as roadway strip development, have turned out to be a poor method to preserve open space, detrimental to rural areas, and an inefficient use of land.

Traditional settlement patterns may suggest a more desirable method to shape future growth especially in growth areas adjacent to the municipalities. While recognizing the value of protecting the agricultural industry, residential development will continue in some areas. Clustering of lots or villagestyle development in these areas can provide open space and habitat areas.

Sussex County's future is dependent on providing the land development opportunities that meet market trends. Therefore, it is important that the County remains flexible and encourages the most appropriate types of development, which will be successful and compatible with adjacent land uses and development patterns. Whether traditional or conventional developments are proposed, it will be critical that a mixture of uses is provided. In addition, clustering should be encouraged wherever possible to preserve the natural environment and agricultural land. Clustering or village-style development in Town Centers and Developing Areas permits various lot sizes, shapes and orientations without increasing the overall density; and provides a flexible integrated conservation of open space and natural features with a mix of single family, townhouse, and multifamily housing types. The developments are conducive to travel by transit, ride sharing, bicycles, and walking by the provision of onsite services, such as convenience stores, restaurants, banks, child care facilities, recreational opportunities, etc., that reduces the need for auto access to and in the developments.

These mixed-use cluster developments will preserve open space, tree cover, scenery, natural drainageways; and facilities attractive and economical site design, and better overall use of land.

The desire for quality development must be balanced against the need to provide adequate housing for the range of incomes in the County. Provisions for sidewalks, street trees and street lighting will increase safety, add to the quality of life in the development and sustain property values but will add to the cost of development. The existing Subdivision Regulations for the County provide a guide for open space as follows:

GROSS DENSITY (DWELLING UNITS PER ACRE)	PERCENTAGE OF OPEN SPACE
2 to 5	10
6 to 10	15
Over 10	15 or more

Provisions for clustering into smaller lot sizes will provide a greater opportunity for open space. The recommended minimum requirements are as follows:

AR-1	20%
MR	20%
GR	20%
RPC	20%
HR-1	30%
HR-2	30%
MRP	25%

Open space can be generally defined as uncovered areas for public enjoyment consisting of such things as green areas, plazas. walks. pathways, gardens, promenades, arcades, lawns, fountains, decorative plantings, passive or active areas, golf recreational courses and uncovered areas used for agriculture or forestry. A portion of the non-tidal wetlands

may be counted as open space if sufficient recreational and buffer areas are provided.

Such space does not include parking or maneuvering areas for vehicles or any individual recorded lots. The type of open space provided has varying values and should be credited according to its value. For example, the set aside of habitat for a threatened species or landscaped buffers might have a higher value than non-tidal wetlands or a golf course.

#### Community Design Growth Management Strategies

The Land Use Plan's Growth Areas allow for a variety of development sizes and types to occur which will satisfy the need to concentrate the majority of development, yet provide alternative design concepts to meet the ever changing market. The intent of the Land Use Plan's Growth Areas is to encourage higher development in and around existing communities, moderate density in the developing areas and low density in agricultural areas.

Specific Community Design Growth Management Strategies include:

- Establish flexible planning and design standards that will promote the most efficient use of land and provide a variety of housing and economic development opportunities.
- Utilize both traditional and conventional design concepts to mixed-use promote cluster developments or villages where public water and wastewater systems are provided. This type of development permits variation in lot size, shape and orientation without an increase in the overall density; and provides a flexible plan that

integrates conservation of open space and natural features with a mix of single-family, townhouse, and multifamily housing types. The developments are conducive to travel by transit, ride sharing, bicycles, and walking; and provide on-site services such convenience as stores. banks. child restaurants. care facilities, recreational opportunities, etc., which reduces the need for auto access to an in the development. Mixed-use cluster development or villages will preserve open space, tree cover, scenery, and natural drainageways; facilitate and attractive and economical site design, and better overall use of land. This may be accomplished by revising the existing provisions in the RPC District or creating a new Mixed Use or Village District.

- Utilize existing municipalities and Rural Communities to guide future development patterns. Adjacent future development should be consistent with the existing character of each area.
  - Encourage a variety of housing types at densities dependent on the availability of adequate public infrastructure and services, and community retail and employment opportunities.
  - Promote the 0 use of comprehensible linear, crossroad, grid development patterns which enhance existing character and functional efficiency; and conveys a sense of place.
  - Encourage retaining Municipal and Rural Community character through mobility corridor linkages, spatial

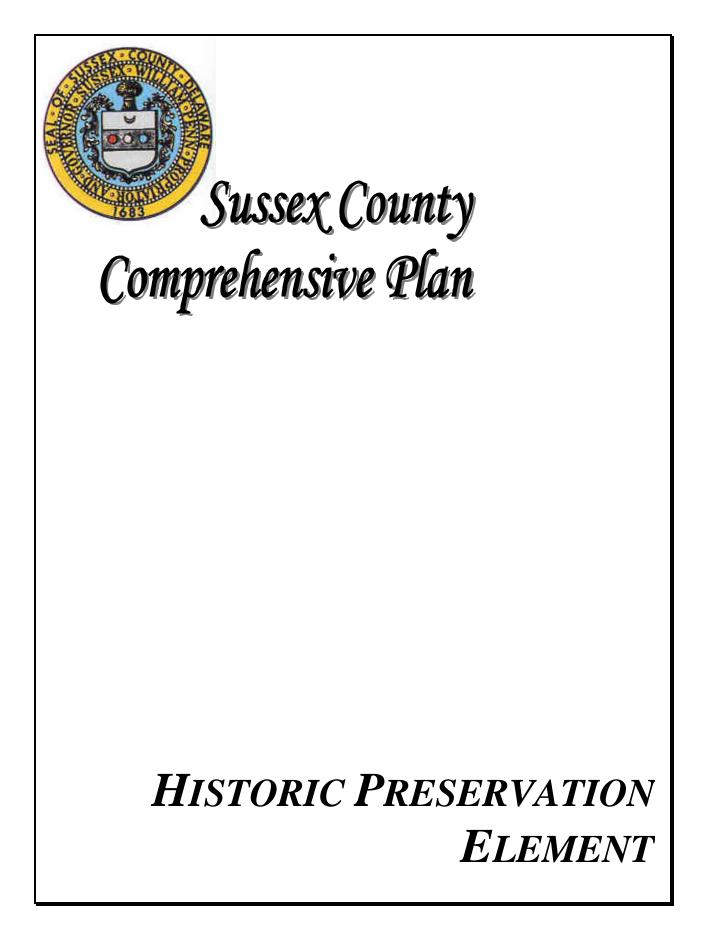
organization, and architectural style and landscape treatment.

- Encourage design concepts, which promotes neighborly interaction and results in a sense of community.
- Encourage design concepts, which accommodate vehicular circulation and parking character and promote community interaction and cohesion through a pedestrianfriendly development pattern.
- Promote balancing local conservation measures with the need to create sustainable communities, which offer economic development and housing opportunities, and are supported by adequate public infrastructure and services.
- The County, DNREC and DelDOT should work to plan and implement a countywide greenways system. The greenways system should interconnect with State and regional systems; and link all of the County's municipalities and major residential areas to retail and employment centers, recreational areas, and mass transit facilities.
- Aggressively support programs such as Main Street.
- Encourage the preservation of historic buildings; and integrate their design assets into growth management strategies in a manner, which protects their integrity and utilizes their character as a guide for growth and economic development.
- Encourage the design of developments which reduce miles traveled. noise and other environmental impacts; and promotes energy conservation and travel efficient behavior bv encouraging joint development

projects which are planned to integrate mixed use, high density development with mass transit systems and greenway bike and pedestrian facilities which connect to major retail, employment and recreational centers.

- Encourage employment centers designed to reduce reliance on lowoccupancy vehicles and increase use of car and van pooling, and public transportation whenever possible, thereby reducing employee generated traffic and congestion.
- Revise the Subdivision Regulations • to expand open space requirements for major developments. Revise the Subdivision Regulations to provide for sidewalks, street trees and streetlights. The amount of open space required should take into account not only the amount of space provided but also the value of the open space. The guidelines for open space volume and quality will vary depending on the size and type of development. The quality of open space should include the conservation of sensitive natural areas for scenic viewing and passive recreation when appropriate. The creation of open space non-related to existing sensitive natural areas should be designed, as a network comprised of forests, meadows and lawns with masses and spaces, which provide aesthetic and spatial experiences. The open space network should be designed as an integral part of the development, which provides active and passive recreational opportunities, and a series of pedestrian and bicycle linkages. The expanded open space requirements will ensure the provision of visually attractive and

functionally useful open spaces, which supports community interaction while maintaining sensitive environmental conditions.



#### HISTORIC PRESERVATION ELEMENT

#### GOAL PRESERVE SUSSEX COUNTY'S HISTORIC DISTRICT HERITAGE

Historic preservation involves recognizing the physical elements of Sussex County's environment which established its present quality of life; and caring for these elements to enrich the County's future. The elements describe the land use activities which today's formulated Sussex County. Historical elements including industrial, residential and institutional buildings and sites, as well as historic open spaces and landscapes, help define Sussex County's development. A list of the Sussex County National Register Properties is provided on Pages 58 through 65.

In addition to sites on the National Register there are Historic Districts and Potential Historic Districts in the following Towns:

Belltown	Ellendale	Lewes
Blades	Frankford	Milford
Bridgeville	Georgetown	Milton
Dagsboro	Greenwood	Seaford
Delmar	Laurel	Selbyville

The level of historic preservation measures initiated in Sussex County is defined by its resident's attitudes toward stewardship of the County's non-renewable historical resources. Historic preservation serves as a link that can bind diverse communities into a unifying historic preservation ethical partnership. This ethical partnership supports the concept that housing and business development should focus on existing communities, that developments should be designed to be visually appealing and to reduce negative impacts on the surrounding areas, and that

redevelopment of existing municipalities and communities will result in stronger economies. Historic preservation can make many direct contributions helping communities to define what is unique about their heritage in developing ways to maintain that heritage, and in using their historic character to improve their economies. The more thoughtfully development is planned, the better the chances of survival for Delaware's historic buildings and archaeological sites.

Historic preservation assists economic stability through supporting the agricultural and tourism businesses. Agricultural preservation is essential to the preservation of archaeological sites and historic farming landscapes. Tourism, while currently focused on the beaches, will move more toward heritage tourism as the population Historic preservation contributes to ages. these industries vital to Sussex County's future economic stability.

Most historic properties are in private ownership, so it will be the success or failure of historic preservation in the private sector that determines which historic communities and landscapes of Delaware survive in the The State has recognized the future. importance of reuse and redevelopment for the economic future of Delaware's towns, the preservation for current infrastructure, and the preservation of existing open space and landscapes for the quality of life in Delaware, and has provided funds for these activities through the 21<sup>st</sup> Century Fund. The State can improve the changes for success bv providing more incentives for private preservation activities, establishing a statewide revolving fund for historic preservation, and by providing information on the historic and economic value of historic properties.

Local governments can also offer many incentives to increase the voluntary use of appropriate rehabilitation and preservation Some techniques include tax techniques. abatements for qualified rehabilitation of historic buildings, transfer of development or density rights from one property to another, encouragement of cluster development to preserve more open space, tax incentives for property easement donations and modified zoning to allow for appropriate commercial uses of historic properties. These actions support sustainable economic growth through the use of existing infrastructure, increase in property values, stimulation for jobs in the building trades, and encouragement of heritage tourism. Protecting Sussex County's historic towns, buildings, and landscapes will play a significant role in maintaining one of the County's most important quality's of life, its historic and cultural heritage.

Historic preservation often focuses on local resources and issues. Therefore, local governments and the general public are primary partners in historic preservation efforts. Municipal and County governments have the authority to protect historic properties through zoning ordinances and building codes. Flexibility in the local ordinances should support integrative historic preservation design that is not intrusive to the historic character of Sussex County.

#### HISTORIC PRESERVATION GROWTH MANAGEMENT STRATEGIES



TheLandUsePlan'sGrowthAreasincorporate

many of the recognized urban and rural community historic buildings and sites in Sussex County. The Land Use Plan's Growth Management Districts suggest that future development should be compatible with existing development patterns. The provision of public wastewater treatment systems or centralized community septic systems will do much to allow for historically sized lots to be developed in a compatible character. Efforts to concentrate public and private investment within the Growth Areas should also support historic preservation through the construction of culturally and visually sensitive infrastructure and recreational projects, which enhance the local area and preserve the natural environment. Specific Historic Preservation Growth Management Strategies include:

- The County should undertake a study • of the feasibility of creating a Preservation Historic Zoning Ordinance and District that would act to protect historic buildings, sites and landscapes, and archaeological sites. The feasibility study should include an investigation of the potential for including historical features into a Transfer of Development Rights Program.
- Establish a program to be administered by the Sussex County Historic Preservation Planner that will integrate historic preservation review into the County's land development process.
- Encourage rehabilitation and reuse of historically significant housing units or adaptive reuse of other historic structures for housing
- Support State versions of Main Street and Enterprise Communities programs for all communities, including funding initiatives.

• Revise the Zoning Ordinance and Subdivision Regulations to include development incentives that promote growth and preserve the historic character of communities by encouraging the adaptive reuse of historic buildings.

Sussex County Historical Locations from the National Register Information System

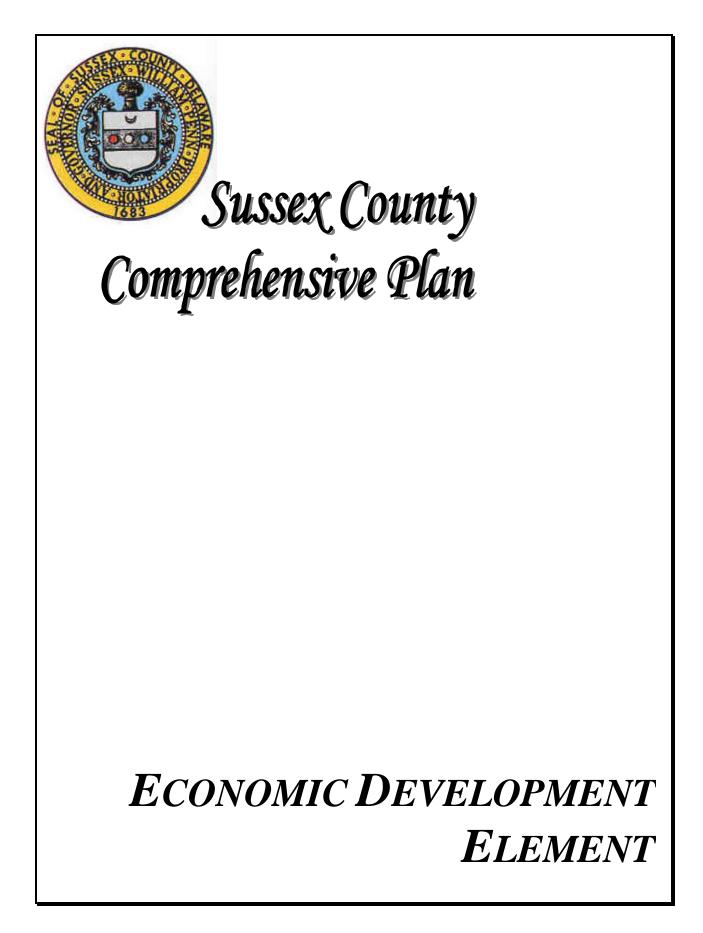
Row	Resource Name	Address	City	Listed
1	Abbott's Mill	SW of Milford	Milford	1972-08-25
2	Abbott's Mill (Boundary Increase)	Rd. 620 W of DE 36	Milford	1979-05-17
3	Adams, Joseph T., House	12 E. Pine St.	Georgetown	1998-08-28
4	All Saints' Episcopal Church	18 Olive Ave., Lewes and Rehoboth Hundred	Rehoboth Beach	1991-08-02
5	Avery's Rest Site	Address Restricted	Rehoboth Beach	1978-12-15
6	Baltimore Mills Historic Archaeological Site	Address restricted	Omar	1997-08-12
7	Barnes Woods Archeological District	Address Restricted	Seaford	1996-12-11
8	Bethel Historic District	0.4 mi. W of Laurel	Bethel	1975-02-10
9	Blackwater Presbyterian Church	W of Clarksville on DE 54	Clarksville	1976-07-09
10	Brick Hotel	The Circle	Georgetown	1979-11-13
11	Bridgeville Historic District	Roughly bounded by Market, Main and Edgewood Sts., School House Ln., Maple Alley and the Penn Central RR tracks	Bridgeville	1994-04-14
12	Bridgeville Public Library	210 Market St.	Bridgeville	1990-07-23
13	Building at 200202A High Street	200202A High St.	Seaford	1987-02-18
14	Building at 218 High Street	218 High St.	Seaford	1987-02-18
15	Building at High and Cannon Streets	SE corner of High and Cannon Sts.	Seaford	1987-02-18
16	Burton Hardware Store	High St. and Spring Alley	Seaford	1978-04-20
17	Cannon's Ferry	Across the Nanticoke River	Woodland	1973-07-02
18	Cape Henlopen Archeological District	Address Restricted	Lewes	1978-11-21
19	Carey's Camp Meeting Ground	W of Millsboro off DE 24	Millsboro	1973-03-14
20	Carlisle House	205 S. Front St.	Milford	1982-04-22
21	Chandler, Capt. Ebe, House	Main and Reed Sts.	Frankford	1979-09-20
22	Chipman Potato House	Jct. of DE 465 and DE 465A	Laurel	1990-11-15
23	Chipman's Mill	E of Laurel on SR 465	Laurel	1978-05-22
24	Coleman House	422 Kings Hwy.	Lewes	1977-04-11
25	Collins Potato House	Jct. of DE 509 and DE 510A	Laurel	1990-11-15
26	Cool Spring Presbyterian	W of Lewes on SR 247	Lewes	1982-08-31

Row	Resource Name	Address	City	Listed
	Church			
27	Cox, J. W., Dry Goods Store	214 High St.	Seaford	1987-02-18
28	Davis, Robert, Farmhouse	S of Rt. 24	Millsboro	1979-04-26
29	Dawson, Dr., House	200 SE Front St.	Milford	1983-01-07
30	De Vries Palisade	Address Restricted	Lewes	1972-02-23
31	Deep Creek Furnace Site	Address Restricted	Middleford	1977-10-20
32	Delaware Boundary Markers	State boundary lines between DE-MD/DE-PA	Not Applicable	1975-02-18
33	Delaware Breakwater and Lewes Harbor	E of Lewes at Cape Henlopen	Lewes	1976-12-12
34	Dickerson Potato House	Jct. of DE 494 and DE 498	Delmar	1990-11-15
35	Dodd Homestead	W of Rehoboth Beach on DE 1	Rehoboth Beach	1982-08-26
36	Draper House	200 Lakeview Ave.	Milford	1982-04-22
37	Draper-Adkins House	204 Federal St.	Milton	1973-04-11
38	Egglinton Hall	700 SE 2nd St.	Milford	1983-01-07
39	Ellendale State Forest Picnic Facility	US 113, 1/2 mi. S of DE 16, Georgetown Hundred	Ellendale	1991-07-22
40	Eratt House	W of Bridgeville on DE 572	Bridgeville	1983-10-29
41	Faucett, Peter S., House	W. Laurel St.	Georgetown	1985-09-05
42	Fenwick Island Lighthouse Station	Off DE 54	Fenwick Island	1979-08-13
43	First Broiler House	University of Delaware Experimental Station	Georgetown	1974-07-03
44	First National Bank of Seaford	118 Pine St.	Seaford	1987-02-18
45	Fisher Homestead	W of Lewes	Lewes	1980-12-11
46	Fisher's Paradise	624 Pilottown Rd.	Lewes	1972-12-04
47	Georgetown Coal Gasification Plant	N. Railroad Ave.	Georgetown	1985-09-30
48	Grier House	301 Lakeview Ave.	Milford	1983-01-07
49	Gyles, Stella Pepper, House	SW of Georgetown	Georgetown	1979-11-13
50	Hall, Col. David, House	107 King's Hwy.	Lewes	1976-04-26
51	Harmon School	S of jct. of Rt. 24 and CR 297	Millsboro	1979-04-26
52	Harmon, Isaac, Farmhouse	CR 312A	Millsboro	1979-04-26
53	Harmony Church	Rt. 24, E of CR 313	Millsboro	1979-04-26
54	Hazzard House	327 Union St.	Milton	1973-07-02
55	Hearn and Rawlins Mill	N of Seaford on U.S. 13A	Seaford	1978-05-22
56	Hearn Potato House	.6 mi. N of jct. of DE 74 and DE 62	Laurel	1990-11-15
57	Highball Signal	City park, near Penn-Central RR.	Delmar	1973-07-02
58	Hitch, E. L., Potato House	Jct. of DE 460 and DE 489	Laurel	1990-11-15
59	Hitchens, Ames, Chicken Farm	N of Rt. 24	Millsboro	1979-04-26
60	Hopkins' Covered Bridge Farm	N side Rd. 262, E of jct. with Rd. 286, Lewes and	Lewes	1991-08-02

Row	Resource Name	Address	City	Listed
		Rehoboth Hundred		
61	Indian Mission Church	Jct. of Rt. 5 and CR 48	Millsboro	1979-04-26
62	Indian Mission School	Rt. 24 between CR 312A and 313A	Millsboro	1979-04-26
63	Indian River Archeological Complex	Address Restricted	Millsboro	1978-12-15
64	Indian River Life Saving Service Station	N of Bethany Beach on DE 14	Bethany Beach	1976-09-29
65	Johnson School	Rt. 24 between CR 309 and 310	Millsboro	1979-04-26
66	Judge's House and Law Office	100 and 104 W. Market St	Georgetown	1979-11-13
67	Laurel Historic District	West St. to Rossakatum Creek to Tenth St.	Laurel	1988-07-27
68	Lawrence	N of Seaford on U.S. 13A	Seaford	1978-05-22
69	Lewes Historic District	Ship-carpenter, Front, Savannah, 2nd, 3rd, and 4th Sts.	Lewes	1977-09-19
70	Lewes Historic District (Boundary Increase)	Roughly bounded by Front St., Savannah Rd., McFee St. and the Penn Central RR tracks, Lewes and Rehobeth Hundred	Lewes	1992-09-11
71	Lewes Presbyterian Church	100 Kings Highway	Lewes	1977-10-05
72	Lightship WLV 539	LewesRehoboth Canal between Shipcarpenter and Mulberry Sts.	Lewes	1989-02-16
73	Marsh, Peter, House	10 Dodd's Lane	Rehoboth Beach	1977-11-23
74	Maston House	3 mi. N of Seaford on Seaford-Atlanta Rd.	Seaford	1975-03-31
75	Maull House	542 Pilottown Rd.	Lewes	1970-11-20
76	Maull, Thomas, House (Boundary Increase)	542 Pilottown Rd.	Lewes	1978-04-26
77	Melson House	N of Atlanta on SR 30	Atlanta	1978-03-08
78	Messick, Dr. John W., House and Office	144 E. Market St.	Georgetown	1987-09-09
79	Milford Railroad Station	DE 36	Milford	1983-01-07
80	Milford Shipyard Area Historic District	Roughly bounded by Mispillion River, Franklin, Front and Marshall Sts.	Milford	1983-01-07
81	Milton Historic District	DE 5	Milton	1982-06-25
82	Mispillion Lighthouse and Beacon Tower	NE end of CR 203	Milford	1987-02-18
83	Moore Potato House	SE of jct. of DE 72 and DE 463	Laurel	1990-11-15
84	National Harbor of Refuge and Delaware Breakwater Harbor Historic District	Mouth of Delaware Bay at Cape Henlopen	Lewes	1989-03-27

Row	Resource Name	Address	City	Listed
85	Norwood House	SW of Lewes on DE 9	Lewes	1982-10-25
86	Old Bridgeville Fire House	102 William St.	Bridgeville	1984-08-09
87	Old Christ Church	SE of Laurel at jct. of SR 465 and 465A	Laurel	1972-04-13
88	Old Sussex County Courthouse	S. Bedford St.	Georgetown	1971-03-24
89	Pagan Creek Dike	Pagan Creek near New Rd.	Lewes	1973-06-18
90	Pepper, Carlton, David, Farm	S of Georgetown on SR 469	Georgetown	1979-09-24
91	Perry-Shockley House	219 Washington St.	Millsboro	1985-09-05
92	Phillips Potato House	SW of jct. of DE 492 and DE 492A	Laurel	1990-11-15
93	Pine Grove Furnace Site	Address Restricted	Concord	1978-01-26
94	Ponder, Gov. James, House	416 Federal St.	Milton	1973-05-24
95	Poplar Thicket	Address Restricted	Bethany Beach	1978-12-29
96	Portsville Lighthouse	N side of CR 493	Portsville	1987-09-08
97	Prince George's Chapel	E of Dagsboro on DE 26	Dagsboro	1971-03-24
98	Ralph Potato House	SE of jct. of DE 493 and DE 494	Laurel	1990-11-15
99	Redden Forest Lodge, Forester's House, and Stable	Redden State Forest	Georgetown	1980-11-25
100	Richards Historic District	County Rd. 34	Greenwood	1983-12-15
101	Richards House-Linden Hall	E of Bridgeville on US 13	Bridgeville	1982-08-26
102	Richards Mansion	N. Bedford St. and the Circle	Georgetown	1979-07-26
103	Rider Potato House	SE of jct. of DE 506 and DE 505	Laurel	1990-11-15
104	Robinson, Jesse, House	High St.	Seaford	1982-08-26
105	Ross Point School	CR 448 near Jct. with Rt. 62	Laurel	2001-08-17
106	Ross, Edgar and Rachel, House	413 High St.	Seaford	1997-09-11
107	Ross, Gov. William H., House	N of Seaford on Market St.	Seaford	1977-10-28
108	Russell, William, House	410 Pilot Town Rd.	Lewes	1977-04-18
109	Scott's Store	NW of Bridgeville on DE 404	Bridgeville	1983-10-29
110	Seaford Station Complex	Nanticoke River at Delaware Railroad Bridge	Seaford	1978-06-15
111	Short Homestead	W of Georgetown at DE 526 and DE 529	Georgetown	1982-04-01
112	Sipple, Thomas, House	N. Bedford & amp; New Sts.	Georgetown	1985-09-05
113	South Milford Historic District	Roughly bounded by Mispillion River, Maple Ave., Church and Washington Sts.	Milford	1983-01-07
114	Spring Banke	NE of Clarksville on DE 26 and Irons Lane	Clarksville	1976-04-30
115	Spring Garden	NE of Laurel on Delaware Ave.	Laurel	1982-08-26
116	St. George's Chapel	9 mi. SW of Lewes on DE 5	Lewes	1973-11-30

Row	Resource Name	Address	City	Listed
117	St. John's Methodist Church	Springfield Crossroads, jct. of SR 30 and Co. Rd. 47	Georgetown	1990-07-12
118	St. Luke's Protestant Episcopal Church	Front St.	Seaford	1977-10-28
119	St. Paul's Episcopal Church	E. Pine St	Georgetown	1979-11-13
120	Stanley Potato House	N of jct. of DE 68 and DE 451	Laurel	1990-11-15
121	Sudler House	N. Main St.	Bridgeville	1974-12-31
122	Sussex County Courthouse and the Circle	The Circle	Georgetown	1973-06-04
123	Sussex National Bank of Seaford	130 High St.	Seaford	1987-02-18
124	Teddy's Tavern	E side Du Pont Blvd., 0.6 mi. N of jct. with DE 16, Cedar Creek Hundred	Ellendale	1991-07-22
125	Thompson's Island Site (Boundary Increase)	address restricted	Rohoboth Beach	1997-07-16
126	Thompson's Loss and Gain Site	Address Restricted	Rehoboth Beach	1978-09-13
127	Thompsons Island Site	Address Restricted	Rehoboth Beach	1978-11-15
128	Townsend Site	Address Restricted	Lewes	1978-09-01
129	Trinity Methodist Episcopal Church	NW of Bridgeville on DE 31	Bridgeville	1978-05-05
130	Warren's Mill	NW of Millsboro on DE 326	Millsboro	1978-09-13
131	Warrington Site	Address Restricted	Rehoboth Beach	1977-10-20
132	West Potato House	US 13 N of jct. with DE 454A	Delmar	1990-11-15
133	Wilgus Site	Address Restricted	Bethany Beach	1978-03-30
134	Wolfe's Neck Site	Address Restricted	Lewes	1978-11-21
135	Wright Potato House	SW of jct. of DE 24 and DE 510	Laurel	1990-11-15
136	Wright, Gardiner, Mansion	228 S. Front St	Georgetown	1979-11-15
137	Wright, Warren T., Farmhouse Site	Address Restricted	Millsboro	1979-04-26



The following table shows the employees, payroll and establishments by industry.

SUSSEX COUNTY					
EMPLOYEES, PAYROLL AND ESTABLISHMENTS BY INDUSTRY					
			AVERAGE	TOTAL	
	ESTABLISHMENTS	EMPLOYEES	WAGE	WAGES	
Agriculture	154	1,394	22,253	31,024,651	
Construction	670	4,796	26,140	125,356,892	
Manufacturing	147	11,506	28,469	327,574,567	
Transportation and Public Utilities	219	1,630	31,098	50,680,180	
Wholesale Trade	188	1,979	32,393	64,100,663	
Retail Trade	1,241	16,284	16,434	267,603,913	
Finance, Insurance & Real Estate	314	4,719	29,926	141,209,500	
Services	1,190	14,436	25,718	371,249,738	
Federal Government	14	320	30,252	9,680,615	
State Education	1	488	27,344	13,343,907	
Local Education	7,	3,163	31,971	101,124,095	
Local Non-Education	27	1,016	27,295	27,732,046	
Total All Industries	4,180	62,797	24,863	1,561,368,463	

#### TABLE 31

Source: 2000 Delaware ES-202 Data Summary; census.gove/epcd/cbp/map/96data/10/005.txt

Sussex County maintains an Economic Development Office with the responsibility for promoting, expanding and diversifying the economic and employment base of the County. The department recruits businesses for all three employment centers. The Capital Improvement Program current anticipates spending \$6.8 million dollars at the Airport Industrial Park in FY03 and \$16.3 million dollars over the next five years. A substantial amount of this funding is expected to come from State and Federal sources. The County has budgeted \$387,549 to staff the Economic Development Office in FY03.

#### TABLE 32

EMPLOYMENT STATUS – 2000				
	DELAWARE		SUSSEX COUNTY	
	NUMBER	%	NUMBER	%
Population	610,289	100	125,358	100
16 years +				
In labor	401,152	65.7	73,325	58.5
force				
Civilian	397,360	65.1	73,161	58.4
labor force				
Employed	376,811	94.8	69,596	95.1
Unemployed	20,549	5.2	3,565	4.9

The lower percentage of people in the labor force in Sussex County (58.5%) as compared to the State of Delaware (65.7%) is attributable to the large number of retirees migrating to Sussex County. The County unemployment rate is low when compared to the state or national statistics.

TABLE 33				
	A			

EDUCATIONAL ATTAINMENT				
	DELAWARE		SUSSEX COUNTY	
	NUMBER	%	NUMBER	%
Population	514,658	100	110,599	100
25 years +				
High	425,122	82.60	84,630	77.51
School				
graduate				
or higher				
College	162,541	31.62	25,077	22.67
degree				

The objective of the Land Use Plan is to direct growth, including economic opportunities, to Town Centers, and developing Areas while recognizing that some industries are compatible with agricultural and can be located in the low density agricultural/residential area.

#### ECONOMIC DEVELOPMENT GROWTH MANAGEMENT STRATEGIES

Specific strategies include the following:

- Maintain the agricultural industry using the criteria for subdivision approval contained in the existing ordinance.
- Target bio-tech industries and agriculturally related manufacturing industries to provide alternate land uses in the low density agricultural/residential area.
- Modify the zoning ordinance to allow agricultural industry and biotech industry, with adequate buffers, in the low-density area.
- Support research efforts to find new uses for agricultural products.
- Work closely with the Delaware Economic Development Office to attract agricultural related and biotech industry to Sussex County.

- Coordinate state, municipal and county efforts to expand the existing business and industrial parks.
- Recognize the Employment Centers and seek state and federal funding to supplement local funding for expansion of the Employment Centers.
- Encourage municipalities to participate in the Main Street and Enterprise Community programs.
- Encourage owners and developers to take advantage of Historic Preservation tax credit programs.
- Diversify the economy by providing necessary infrastructure in the Town Centers and Developing Areas.
- Maintain tourism by addressing traffic congestion problems and increasing access to state owned beaches.
- Encourage the State to improve the road network in Sussex County to get goods to market and help the tourist industry.
- Encourage mixed-use development that includes on-site services such as convenience stores, restaurants, banks, child-care facilities, recreational opportunities, etc., which foster sustainable communities.

#### ECONOMIC DEVELOPMENT ELEMENT

#### GOAL DIRECT PUBLIC AND PRIVATE INVESTMENT IN A MNNER, WHICH PROMOTES GROWTH AND ECONOMIC STABILITY

Sussex County has continued to aggressively increase and broaden its economic and employment base. Agriculture is still the primary industry in the County, with tourism "Shaping Delaware's rapidly growing. Future" prepared by the Cabinet Committee on State Planning Issues estimates that 272,008 acres, or forty-four percent of the total land in Sussex County was used for agriculture in 1997. The estimated annual value of agricultural products sold was \$329,552,000. Livestock, poultry and their products accounted for eighty-nine percent of this total.

It is important for the County to recognize that agriculture is not only a land use, it is also an industry, and protection and expansion of this industry must continue to be a priority of the County. In accomplishing this objective, the County must look for ways to attract and promote new agricultural related industries as well as other business enterprises which are compatible with farming activities. Some examples of this are the poultry litter palletizing facility and vegetable processing plants. Other compatible industries include agriculturally related research laboratories and bio-tech companies.

To protect existing viable farmland from encroaching development, the provisions contained in the Subdivision Regulations related to the consideration of site plan approval should be followed. These considerations include the (13) Preservation and Conservation of Farmland and (16) Compatibility with other land uses.

Tourism continues to be the number one employment generator in the County and is likely to remain so in the near future. One threat to the viability of this industry is the increasing traffic congestion in the Route 1 Corridor. A committee that includes DelDOT and citizens is currently addressing this issue. The growth in tourism combined with the growth in permanent and seasonal population has put a strain on the Delaware beaches. The State should continue its program to replenish the beaches and provide parking and sanitary facilities to use some of the State owned beachfront.

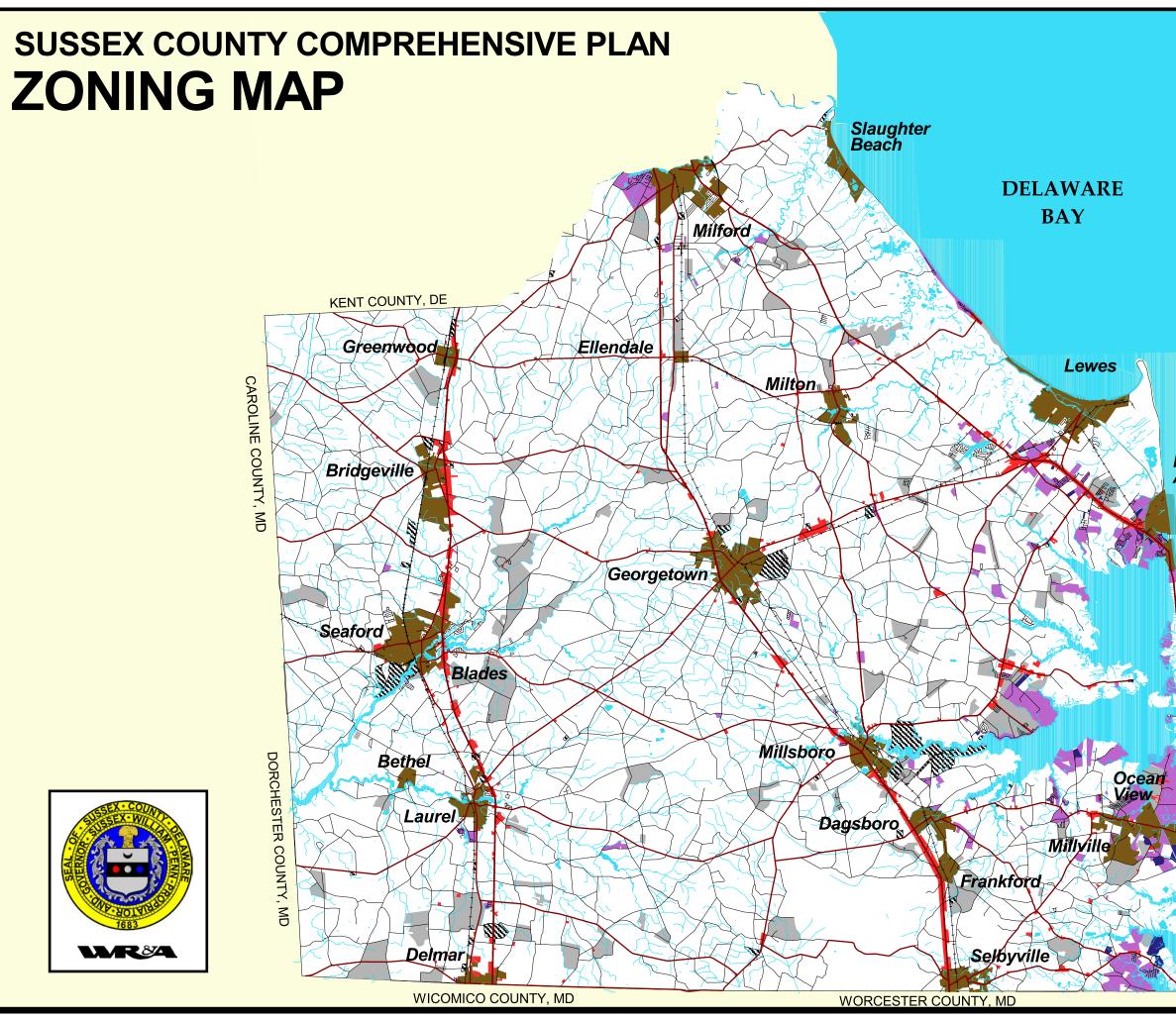
The County is experiencing steady, diversified growth in its manufacturing industries, which included approximately 147 establishments employing more than 11,000 in the year 2000 and a payroll of about \$327 million dollars. Significant industries include the E.I. duPont de Nemours Company, Inc., Vlasic Foods, Perdue, Inc., and Decreane Aircraft.

At the present time, there are three important

employment centers devoted to business development



and manufacturing industries located in Sussex County. These include Seaford Industrial Park and the Seaford Business Park, the Sussex County Industrial Airpark and the Selbyville Industrial Park. Acreage for future development is available in all three locations.



# **FIGURE 7**

### LEGEND

Municipal BoundaryHigh DensityHRIndustrialL-1, L-2Medium DensityMRCommercialC-1 / B-GeneralGRMajor RoadsMinor RoadsRailroadsRailroads

NOTE: Zoning is shown for general information only. Consult zoning map for official designations.

Streams

L-1, L-2, M and HI MR C-1 / B-1

Henlopen Acres

> Rehoboth Beach

> > Dewey Beach

> > > ATLANTIC OCEAN

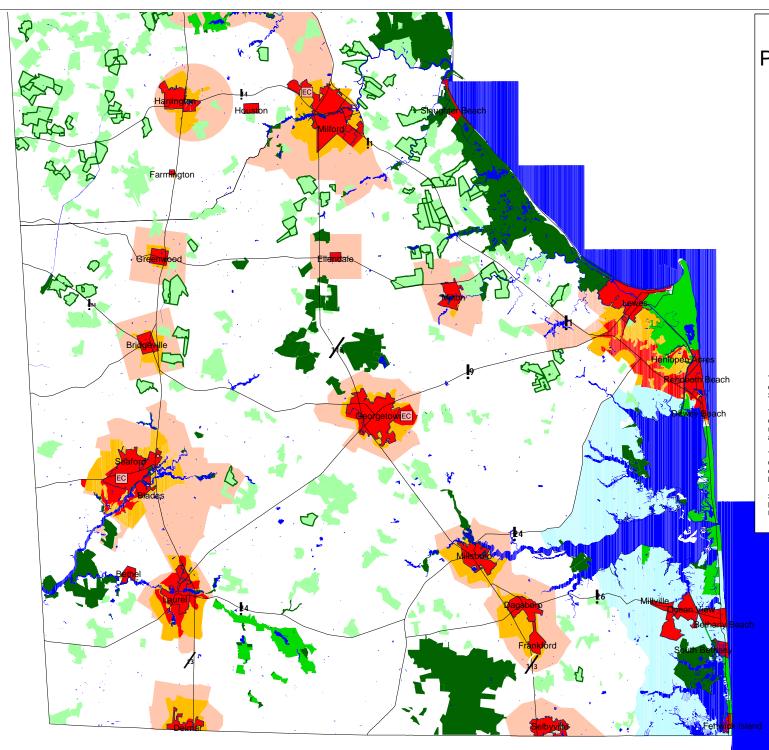
Bethany Beach

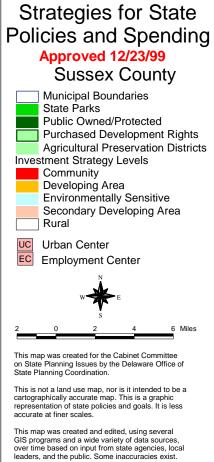
South Bethany

> Fenwick Island



SOURCES: Delaware Department of Transportation Delaware Office of State Planning Coordination Delaware Department of Natural Resources and Environmental Control United States Geological Survey





Special thanks to the Departments of Agriculture, Natural Resources, and Transportation; to the University of Delaware; and to Thompson Mapping.