

# **MOBILITY ELEMENT**

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### **Transportation Plan Update**

This Sussex County Mobility Element coordinates transportation planning to support future land use changes anticipated in the county by the year 2030.

A long-range, strategic approach is imperative in light of the challenges Sussex County faces. Land development practices have shaped an auto-dependent environment, contributing to congestion and unacceptable air quality. Development has also consumed a large amount of open space, eliminating farmland, animal habitat, and threatening the character and quality of life enjoyed by residents and visitors. In contrast, by coordinating land use and transportation, quality of life can be preserved for current and future generations.

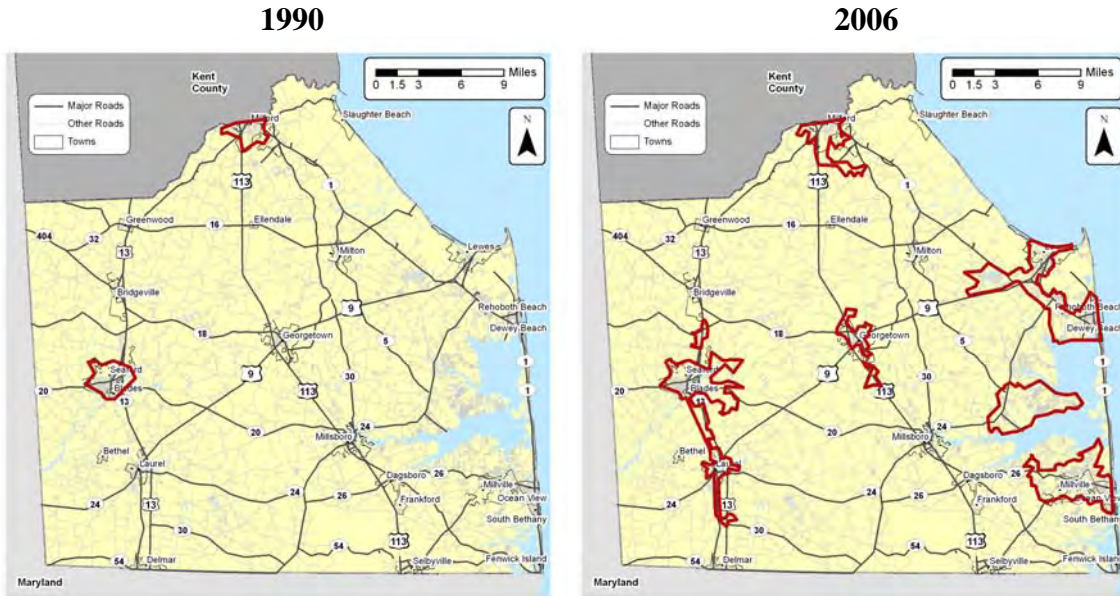
Linking transportation and land use is challenging because different entities are responsible for transportation improvements and land use approvals. DelDOT is responsible for 86 percent of the roads in Sussex County across all functional classifications and has statutory responsibility to plan, construct, and maintain the state highway system and to approve all access to it.

Sussex County Council is responsible for all land use decisions in the unincorporated areas of the County, while 25 separate municipalities are responsible for land use decisions within incorporated municipal limits. These land use and planning entities are responsible for comprehensive land use planning and enacting ordinances to support the land use plans. The County and municipalities review, approve, or deny site plans, subdivisions, and other zoning changes. Land use decisions made without understanding their full impact to the transportation system can lead to costly unintended consequences. As the rural County becomes more urbanized, the land use and transportation linkage becomes even more important.

Coordinated land use and transportation planning requires the participation of all stakeholders. Sussex County, its 25 municipalities, DelDOT, and the State of Delaware are all committed to growth in a coordinated manner. These entities need to work together so that land development complies with state land use policies and investment strategies and reflects local goals and objectives

The comprehensive land use plans of the County and several municipalities reflect the importance and intent to coordinate with DelDOT in planning future developments. However, many of those plans lack a coordinated regional approach to planning and evaluating impacts to other communities or developments. The cumulative effect of development on the regional transportation system needs to be better defined when many different planning jurisdictions are involved. Understanding the transportation-land use connection in a local, multi-municipal, and county-wide context is critical in determining the extent to which DelDOT will be able to provide future transportation facilities and services to ensure mobility and economic viability.

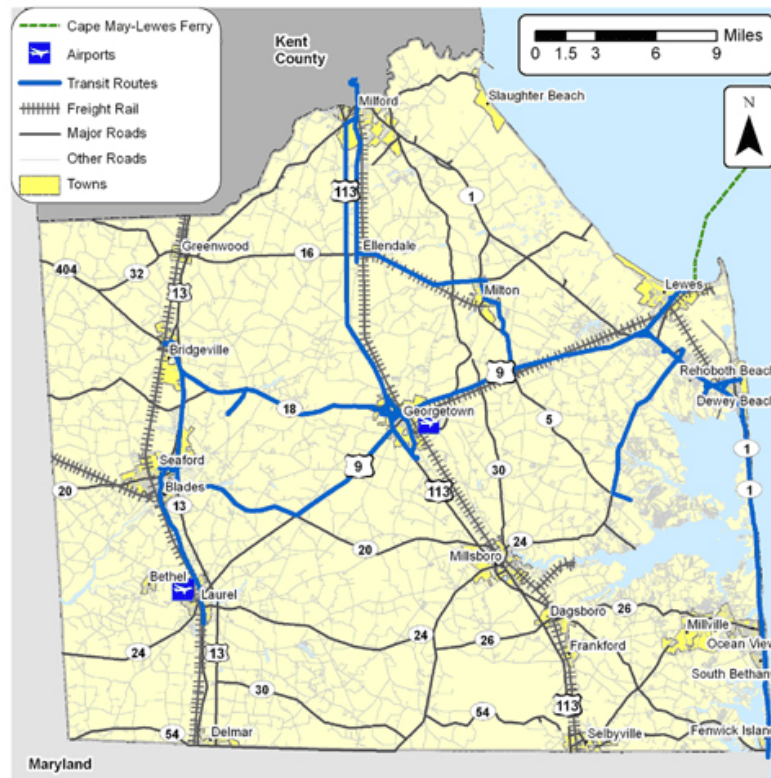
### Urbanized Areas



### Transportation System Overview

The Sussex County transportation system is comprised of roads, bridges, public transit, bicycle and pedestrian facilities, rail freight lines, airports, and ferries.

### Sussex County’s Transportation Network



Source: DeIDOT, 2007

### ***Roads, Highways, and Local Roads***

The Delaware Department of Transportation (DelDOT) has traditionally classified highways according to their function and the character of the traffic they serve. The functional classification system contains designations identified by DelDOT according to federal guidelines and approved by the FHWA. The system serves as a guide for both planning and funding purposes and is summarized below. Note that not all of these roadway types exist in Sussex County.

Interstates – Routes designated as the Dwight D. Eisenhower National System of Interstate and Defense Highways. These are primary travel routes with the longest trip lengths and which connect metropolitan areas, cities, and industrial centers. These roadways do not provide direct access to adjacent uses and interconnect primarily with other high classification routes.

Other Freeways/Expressways – This classification is only present within urbanized areas, where interstate-type routes primarily serve metropolitan cities and industrial areas. They do not provide land access and they interconnect primarily with other high classification routes.

Other Principal Arterials – These roads provide an integrated network of routes that serve major activity and urban centers. They are the highest traffic volume corridors with typically long trip lengths and provide a link between the higher and lower classification roadways. Land access is not prohibited.

Minor Arterials – These routes interconnect other principal arterials and provide access to smaller developed areas; they also link cities and towns. More emphasis is placed on land access via minor arterials than via other principal arterials.

Major Collectors – These routes are typically referred to simply as “collectors” in urban areas. These are routes that provide service to important travel generators (i.e., county seats, towns, schools, recreational, and agricultural areas) that are not served by higher classification roadways. They typically provide land access while also collecting traffic from lower classifications and channeling vehicles to higher classification roadways.

Minor Collectors – These roads are only present in rural areas, where they service local traffic generators and smaller towns and communities, providing land access and linking traffic from local roads to the higher classifications.

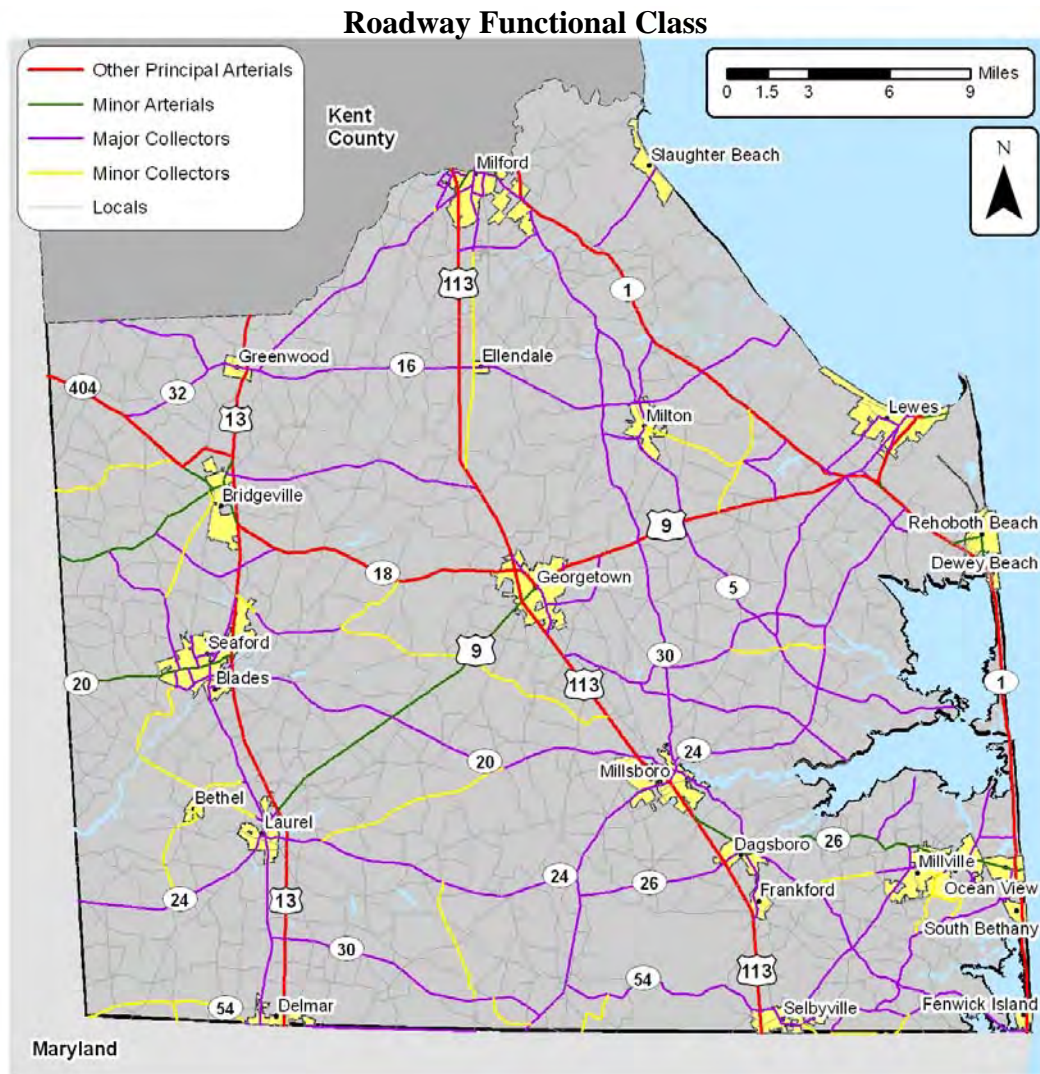
Local Roads – These roads provide direct access to land and linkages to higher classification routes. Local roads carry the lowest volumes of traffic and relatively short trip lengths, and encompass all roads not designated at higher classifications.

Regardless of function, all of these roads in Sussex County provide access to the developer or Home Owners’ Association (HOA) maintained private roads.

*Roadway Mileage by Usage and Type*

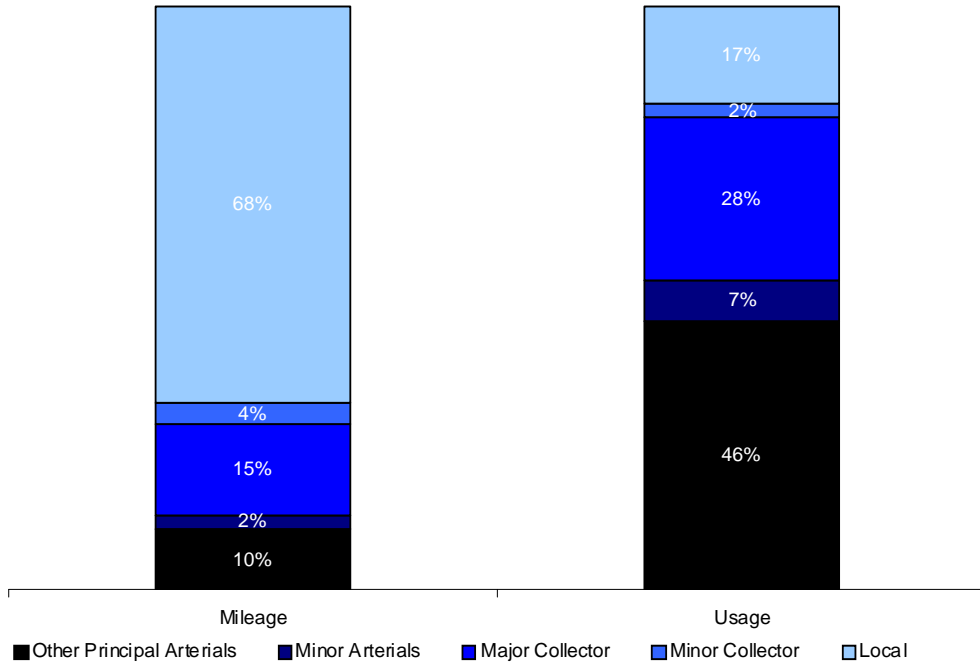
Sussex County does not have any interstates, expressways, or freeways. Most of the lane miles in the county (68 percent), as shown on the Roadway Functional Class map, are local roads. Major collectors comprise the next largest group of roadways at 15 percent. Other principal arterials represent 10 percent of the lane miles. Finally, only two percent of the roadway lane miles are minor arterials.

With respect to miles traveled by type, other principal arterials carry the most volume of traffic (46 percent). Local roads, while providing the most lane miles, carry only 17 percent of the county’s traffic. Other principal arterials, including Route 1, portions of 9, 13, and 113, carry the greatest share of the county’s traffic.



Source: DelDOT, 2005

### Roadway Mileage by Type and Usage



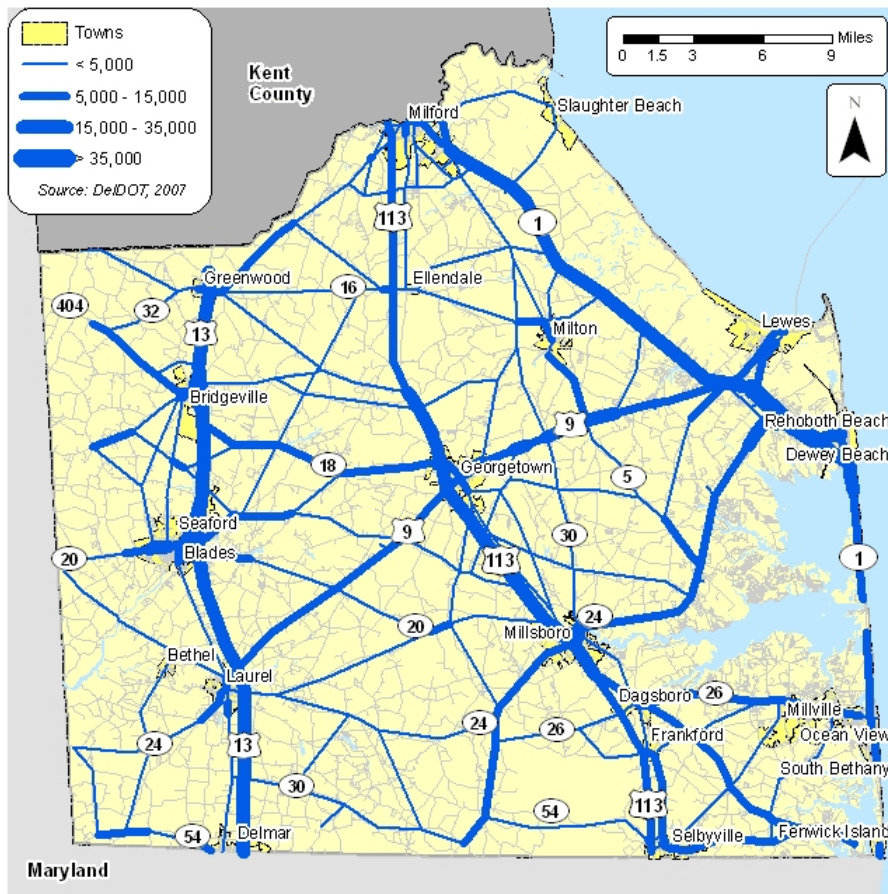
Source: DelDOT, HPMS, 2005



*Average Annual Daily Traffic*

The map entitled AADT by Roadway 2005 shows average annual daily traffic (AADT) on key roadways in Sussex County based on the DeIDOT travel demand model output results. Actual traffic counts from 2005 show that US-13 and SR-1 were the heaviest traveled routes in the county, each carrying more than 30,000<sup>1</sup> vehicles daily on its busiest segments. US-113 is the next heaviest north-south route with more than 24,000 vehicles daily. The key east-west routes in the county are US-9, SR-18/SR-404, and SR-24.

**AADT by Roadway 2005**



Source: DeIDOT, 2007

<sup>1</sup> [http://www.deldot.gov/static/pubs\\_forms/traffic\\_counts/2006/rpt\\_pgs1\\_38\\_rev.pdf](http://www.deldot.gov/static/pubs_forms/traffic_counts/2006/rpt_pgs1_38_rev.pdf)

**Significant Highways and Roadways**

The table below contains an inventory of selected roadways that serve Sussex County.

**Table 21  
Selected Key Sussex County Roadway Characteristics**

HIGHWAY OR ROADWAY	FUNCTIONAL CLASSIFICATION(S)	KEY FEATURES
1	Other Principal Arterial	<ul style="list-style-type: none"> <li>One of the heaviest used roadways in the county, carrying 60,000 daily travelers (AADT) around the Rehoboth Beach area based on 2005 counts. In addition to being a key north-south route, it also provides access to the beach areas.</li> </ul>
13	Other Principal Arterial	<ul style="list-style-type: none"> <li>Heavily used north-south route with up to 30,000 vehicles carried daily in the Seaford area based on 2004 counts.</li> </ul>
113	Other Principal Arterial	<ul style="list-style-type: none"> <li>Another busy north-south route carrying more than 24,000 vehicles daily on its busiest segment in Millsboro based on 2004 counts.</li> </ul>
404	Other Principal Arterial	<ul style="list-style-type: none"> <li>Key east-west corridor that experiences significant truck traffic and carried over 26,000 vehicles in the Bridgeville area in 2005.</li> </ul>
9	Major Arterial, Minor Arterial	<ul style="list-style-type: none"> <li>AADT of almost 16,000 in 2005.</li> </ul>

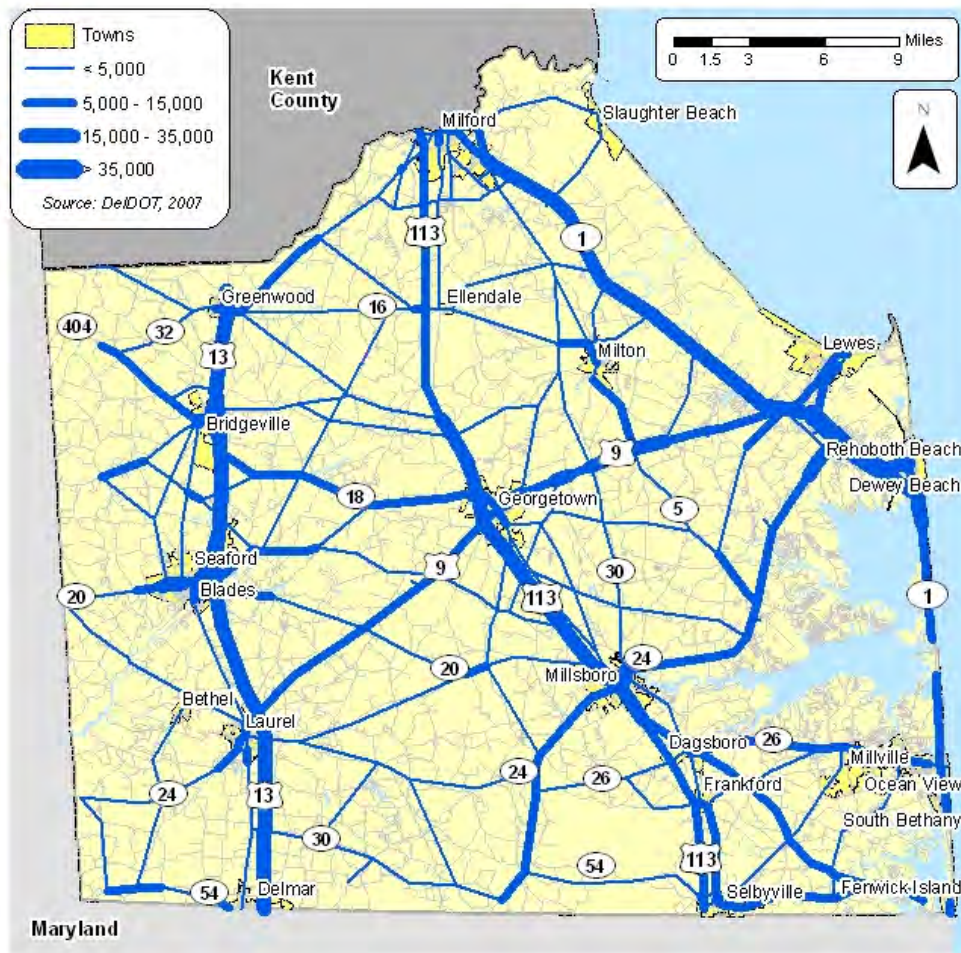
Source: DeIDOT, Traffic Summary 2006, [http://www.deldot.gov/static/pubs\\_forms/traffic\\_counts/2006/index.shtml](http://www.deldot.gov/static/pubs_forms/traffic_counts/2006/index.shtml)



### Traffic Growth

The daily traffic volumes are expected to grow significantly throughout the state between 2005 and 2030. The statewide travel demand model shows that most of the growth is expected to occur around US-113 with AADT more than doubling around the Millsboro, Georgetown, and Selbyville areas. Seasonal traffic volume increases will also add more volume to the beach areas of the county.

### AADT Growth between 2005 and 2030 by Roadway



Source: DeIDOT, Statewide Travel Demand Model, 2007

### Seasonal Travel Behavior

Sussex County's proximity to the Atlantic Ocean brings a tremendous number of visitors from all over the mid-Atlantic region to the resort areas in Delaware such as Rehoboth and Bethany Beaches. Vacationers also travel through Sussex County to get to Maryland beaches, particularly

Ocean City. Many year-round residents cite these visitors as the cause of the majority of the traffic woes in the county. Weekends during the summer, and increasingly in the off-season, are known for their high traffic volumes along east-west through routes such as Routes 9, 404, 20, 24, 26, as well as north-south routes such as US 113 and SR 1. Conflicts with local traffic often occur, especially with farm equipment on rural roads and local traffic on small town streets. In addition, large volumes of visitors travel within the resorts, moving to and from hotels, vacation homes, outlet stores, boardwalk areas, and beaches up and down the coast.

The following maps compare year-round congestion on the County's roadway system in 2000 versus 2030 assuming that no projects other than the ones that are currently planned are undertaken. Thicker red lines represent more congested corridors. If no new projects are completed, a lot more congestion will occur on the east-west routes as well as on Route US-13. The lower two maps provide the same comparison but only during the summer months. As expected, without new projects, the congestion during the summer is expected to be significantly worse than during year-round.

**2000 and 2030 Year-Round Congestion (Volume to Capacity Ratio > 0.85)**



**2000 and 2030 Summer Congestion (Volume to Capacity Ratio > 0.85)**



As there is almost no transit service to the resorts from any of the major population centers in the Mid-Atlantic, virtually all seasonal travel is by automobile. Within the resort areas, there are successful examples of non-automobile travel, including the Jolly Trolley in Rehoboth and the bus system within Ocean City, MD. Specifically, DART First State resort service uses the

Rehoboth Park-and-Ride lot as its hub and serves Rehoboth Beach, Lewes, Georgetown, Long Neck, Pot-Nets, and Ocean City. There are six seasonal-only routes and Route 206 service has extended operating hours during the peak season. However, most of the shopping areas along SR-1 in Rehoboth are strictly auto-oriented. Furthermore, the number of cars tourists bring, and the frequency with which they are used within resort areas, are believed to be increasing, though no hard data has been collected on tourist travel habits.

### *Trucking*

The dominant means of goods movement in Sussex County is by truck. Trucks carry food products, consumer goods, raw materials, and commercial supplies into Delaware and they carry finished products out of Delaware. US-13 and US-113 are major north-south truck routes. Trucks are critical to Delaware's economy and without them many businesses would leave Delaware for other states. The focus on "just in time" goods delivery is part of the reason for the continuing increase in truck traffic both in Sussex County and nationwide.

While trucks play a crucial role in commerce, it is widely held that the dominance of trucks for goods movement has several negative affects, including perceived increased safety hazards to other motorists and increased highway congestion and pollution. Truck traffic is of particularly concern to traditional activity centers such as Georgetown, Lewes, Milton, and Laurel. Large trucks can impede the smooth flow of traffic through towns, and threaten the residential viability and small-town character of these areas.

Sussex County's four business parks, in Seaford, Georgetown, and Selbyville, have had an important economic impact to the county.

## **Bridges**

Because bridges are essential structural facilities for crossing waterways, other travel routes, railroads, and for the avoidance of other hazards, they are classified independently from other transportation facilities. DelDOT monitors and documents bridge conditions through regular inspections and scheduled maintenance, noting bridges that require upgrade, repair, or replacement. Bridges in need of repair or replacement are categorized by DelDOT as either structurally deficient or functionally obsolete according to guidelines established by the Federal Highway Administration.

Structurally deficient bridges are defined as those that have some level of deterioration and are thus restricted to light vehicles, require immediate rehabilitation to remain open, or are closed. Functionally obsolete bridges are those with deck geometry (e.g., lane width), load carrying capacity, clearance, or approach roadway alignment that no longer meets the criteria for the system of which the bridge is a part.

DelDOT continues to make strong progress in improving bridge conditions. In Sussex County, the percentage of bridges considered structurally deficient or functionally obsolete has decreased from 12.8 percent in 2000 to 7.7 percent in 2006. Overall, Delaware is fifth best nationwide in

percent of structurally deficient or functionally obsolete bridges and a leader in the small percent of structurally deficient bridge surface area.

**Table 22**  
**Bridge Conditions in Sussex County and the State of Delaware**

YEAR	SUSSEX COUNTY			STATE OF DELAWARE		
	Total Bridges	Structurally Deficient	Functionally Obsolete	Total Bridges	Structurally Deficient	Functionally Obsolete
2000	366	19	28	1,347	71	152
2001	368	22	28	1,357	72	152
2002	371	20	28	1,359	65	151
2003	373	18	25	1,373	65	145
2004	375	22	23	1,379	68	140
2005	375	20	21	1,382	58	145
2006	379	8	21	1,429	33	175

Source: DelDOT, 2007

## Transit

### *Fixed Route Bus Services*

The Delaware Transit Corporation (DTC) operates DART First State (DART) fixed route transit service for the general public and para-transit services for the elderly and disabled in Sussex County. Year-round fixed route service provides service to many municipalities, connecting low income neighborhoods to employment opportunities on the eastern part of the county along the SR-1 corridor and areas along US-113 and US-13. In addition to year-round transit service, DART provides a summer season operation supplementing transit service from Memorial Day through Labor Day. The seasonal service originates out of the park & ride lot located on Country Club Drive in Rehoboth. All routes traverse through the park & ride lot and offer service to Ocean City, Maryland, the Rehoboth Boardwalk, Lewes, Georgetown, and Long Neck.

The Rehoboth Park & Ride Lot can accommodate 500 cars and provides an average of 400 trips per day into the Rehoboth Boardwalk—a significant mitigation to auto traffic during peak weekends and holidays.

The following map shows the regular and seasonal fixed route services operated by DART.



### DART Fixed Route Services



Source: DART First State, 2007

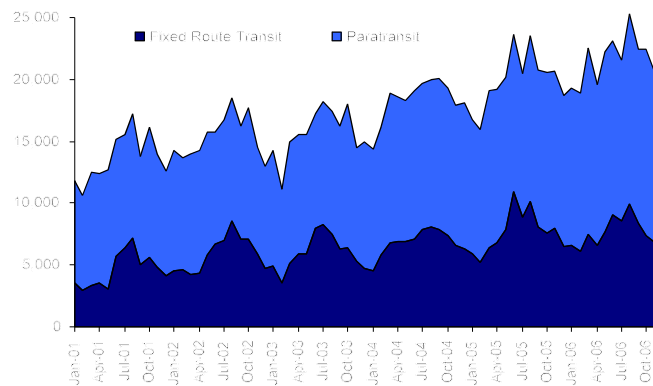
### *Paratransit Services*

On demand, door-to-door paratransit services operated by DART are available for senior citizens and persons with disabilities Monday through Saturday from 6 a.m. until 9 p.m. Trip requests can be submitted by phone or using an online registration form. Requests by phone must be made 24 hours prior to requested pick-up time; online requests must be made two business days in advance of the scheduled trip. While paratransit service can be accommodated between any two locations, they must be within the State of Delaware. Paratransit trips on state holidays are restricted.

Paratransit trips within Sussex County account for more than 50 percent of all daily transit trips, excluding seasonal fixed route trips made between May and September. Furthermore, while both fixed route and paratransit trips have increased from 2001 to 2006, the number of paratransit trips significantly outpaces those provided by fixed route services. This is of significant concern to DART as providing a paratransit trip is much more expensive than providing a fixed route trip.

The DART Fixed Route Services map highlights paratransit tripmaking versus fixed route tripmaking.

### Transit Tripmaking by Type, Sussex County 2001-2006



Source: DART First State, 2007

In addition to DTC, numerous social service agencies provide human services transportation within Sussex County. These agencies serve a variety of clients including, but not limited to, the elderly and disabled. DelDOT supports these organizations either by providing vehicles or by providing some level of financial support, either directly or through reimbursement. Department of Health and Social Services and Division of Developmental Disabilities Services are two of the main providers engaged in the provision of transportation services for their clients or qualified individuals.

Other paratransit trips are accommodated by private, non-profit operators throughout the county. The primary operators are Sussex Senior Services (CHEER) and other senior centers in the county. They mainly provide trips for senior citizens to the senior centers, medical appointments, and shopping. A portion of the operating expenses of these non-profit service providers is funded by the State or Sussex County Council. Each of these agencies has its own area of focus and client base, but works to coordinate efforts and share information through the Sussex County Mobility Consortium, an organization of participating non-profit human services transportation providers in Sussex County.

In addition, a number of private (for profit) transportation service providers and taxis serve the elderly and disabled with Medicaid-eligible trips, as well as transporting the general public.

As part of the Sussex County Transportation Plan Update, a coordinated public transit-human service transportation plan (Coordinated Transit Plan) has been developed through a process that includes representatives of public, private, and non-profit transit providers. The Coordinated Transit Plan is required by the Federal Transit Administration (FTA) for new funding available under the “New Freedom Program” for new programs providing transit service for work trips currently not served. The Coordinated Transit Plan contains an assessment of needs and available transit services, and offers strategies to address gaps in service.



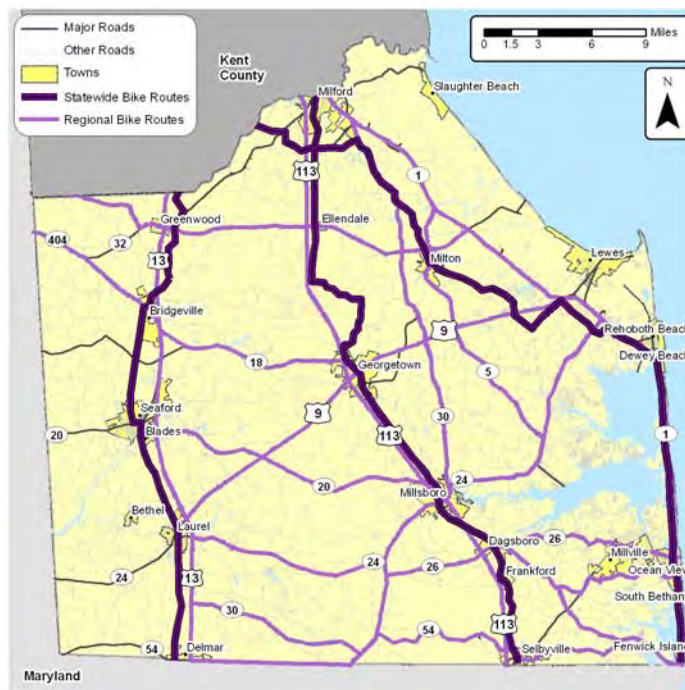
## Bicycle and Pedestrian

In 2005, the Bicycle Facility Master Plan was developed to define and implement a statewide system of designated on-road bicycle routes to improve bicycle travel options. Implementation of the plan seeks to achieve the following goals:

1. Integrate existing bicycle routes and trails into a larger, statewide bicycle network, and
2. Establish bicycle routes connecting municipalities, activity centers, and recreational areas throughout the state.

The following map represents the proposed bicycle route map for Sussex County:

### Proposed Bicycle Facilities in Sussex County



Other bicycle and pedestrian initiatives include:

- **Statewide Pedestrian Action Plan** – In March 2006 Governor Minner issued Executive Order Number 83, creating an Advisory Council on Walkability and Pedestrian Awareness. Council members represent local governments, citizens with disabilities, the DeIDOT Department of Planning, the Delaware Department of Natural Resources, the Delaware Department of Safety, the Wilmington Metropolitan Area Planning Council, and other entities. The purpose of the council is to assist DeIDOT in developing a Statewide Pedestrian Action Plan to:

- Ensure that paths and sidewalks are continuous and interconnected where feasible;
  - Develop consistent design standards for crosswalks, sidewalks, and pathways;
  - Clarify maintenance responsibility for sidewalks;
  - Review traffic rules and driver behavior to help support a safer pedestrian environment; and
  - Promote land use and traffic patterns that encourage walking and reduce air pollution.
- **The Statewide Rails-to-Trails/Rail-with-Trail System Master Plan** – The Statewide Rails-to-Trails/Rail-with-Trail System Master Plan, completed in 2006, identifies all abandoned or underutilized rail lines in the state. It prioritizes them for possible future development based on opportunities for connections to other bicycle and pedestrian facilities and their overall condition.

Within Sussex County three rail lines have been recommended for more advanced evaluations and planning studies, for inclusion in the Capital Improvements Program of the Statewide Long-Range Transportation Plan.

These rail lines include:

- Georgetown-Lewes Running Track (16.7 miles)
- Completion of the Junction & Breakwater Trail (1.7 miles)
- Ellendale-Milton Industrial Track (6.8 miles)

Of these corridors the Georgetown-Lewes Running Track has been advanced into a planning study to determine feasibility of the corridor and prioritization of segment development. The Junction/Breakwater is currently being expanded through development to provide direct connection to Lewes and to the Georgetown-Lewes Running Track.

- **Transportation Enhancement Program** – DelDOT manages the Transportation Enhancements program, which directs federal funds to surface transportation-related projects that will strengthen the cultural, aesthetic, and environmental facets of the host communities. Participation in this program is primarily community driven. The Transportation Enhancements program helps finance a variety of non-traditional projects, with examples ranging from the restoration of historic transportation facilities, to bike and pedestrian facilities, to landscaping and scenic beautification, to the mitigation of water pollution from highway runoff.

Transportation Enhancement projects financed through DelDOT in Sussex County between 2001 and 2007 include:

- Laurel Train Station Phase II
- Town of Dagsboro Streetscape Improvements
- Town of Delmar Streetscape Improvements
- Fenwick Island Median Improvements

- Town of Milton Rail to Trail
  - York Street Construction, South Bethany
  - Lewes Canal Waterfront
  - Trap Pond Pedestrian and Bicycle Trail
  - Huling Cove Sidewalks
  - Greenwood Sidewalk Improvements
  - Dagsboro Sidewalk Improvements
  - Rehoboth Beach Streetscape
  - Mulberry Street Drainage and Sidewalk Improvements
  - Mispillion River Greenway Phase 12
  - Georgetown Circle Renovations
- **Safe Routes to School Program** – Safe Routes to School is a 100 percent federally funded program through SAFETEA-LU that encourages and enables safe walking and/or bicycling to school. These funds can be applied to a variety of uses such as better signage, sidewalk improvements, and other projects within two miles of an elementary or middle school. Total statewide annual funding is approximately \$1 million, available for elementary and middle school projects and program administration. Similar to the Transportation Enhancement program, this program is also community driven.

Public schools or charter schools recognized by the Department of Education may participate in the Safe Routes to School program, provided that the request is supported by the school principal or a district-level administrator. Funding is available to the organization or agency that is administering the program; this may be the participating school or organization acting on behalf of the participating school. Eligible funding recipients include state, regional, or local agencies, including nonprofit organizations, and schools or school districts. Funding is available on a reimbursement basis.

Schools must have identified projects and activities through a community planning process and must include projects and activities in five areas: education, encouragement, enforcement, engineering, and evaluation. Planning assistance is available.

Currently, four schools are participating in the program, and are in various phases of the planning process. Although no schools in Sussex County are currently participating, the Safe Route to School program is partnering with Nemours Health and Prevention Services to encourage schools in Sussex County to participate. Approximately \$700,000 in infrastructure funds will be available in the next year for Sussex County participants once they have developed Safe Routes to School plans. This funding will be in the form of construction services administered by DelDOT.

- **State Scenic and Historic Highways Program** – A Scenic and Historic Highway, also known as a scenic byway, is a route that travels through an area that has intrinsic scenic, historic, natural, cultural, recreational, or archaeological qualities. During the 2000 legislative session, the General Assembly passed Senate Bill 320, authorizing DelDOT to develop the State Scenic and Historic Highways Program (SSHH Program). The purpose of the program is to identify, preserve, and enhance roadways in Delaware that possess outstanding visual qualities.

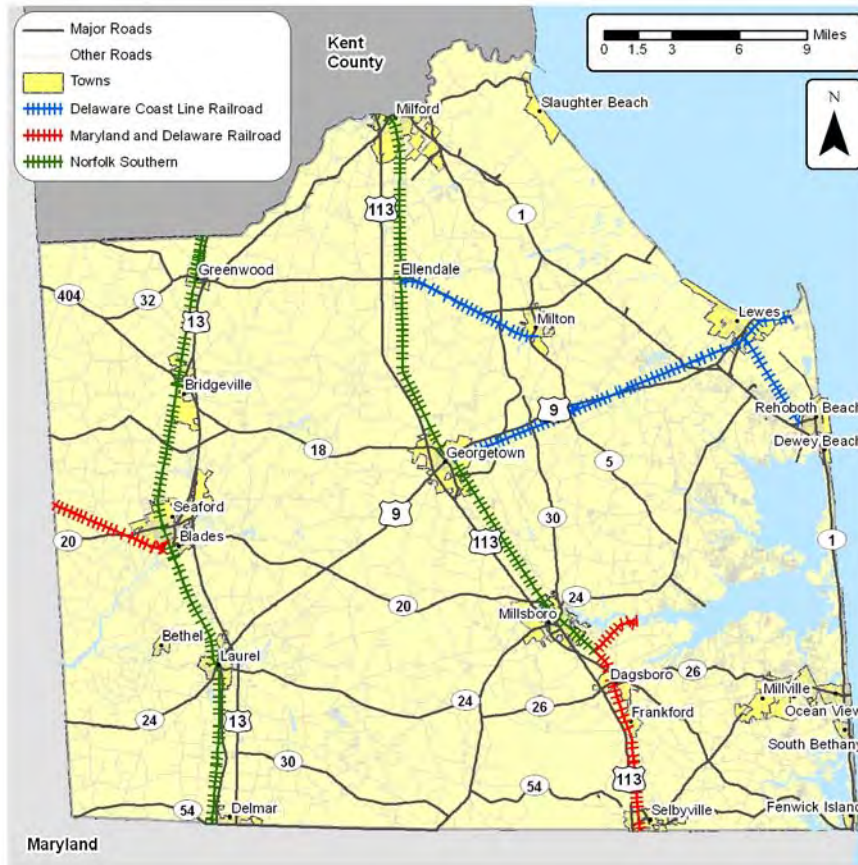
To date, DelDOT has designated three State Scenic and Historic Highways: the Brandywine Valley Scenic Byway in New Castle County, the Red Clay Valley Scenic Byway in New Castle County, and the Route 9 Coastal Heritage Scenic Byway in New Castle and Kent Counties. DelDOT has undertaken several outreach efforts in Sussex County and is working with local governments and other organizations to identify candidate corridors. In order to get this designation, a roadway must be nominated by any interested party, which could be an individual; groups of individuals, local governments; state or federal agencies; or non-profit agencies. After the designation, it is required that a Corridor Management Plan be developed to outline strategies to preserve and enhance the roadway. There are funding opportunities from the Federal Highway Administration (FHWA) to develop and implement the plan. DelDOT is currently working with groups in Laurel and Seaford to prepare a nomination for roads in western Sussex County, Seaford, Bethel and Laurel through the Nanticoke area.

## **Rail Freight**

There are three principal rail freight service providers in Sussex County, with Norfolk Southern providing a link to the national railroad system. Norfolk Southern's two lines through Sussex County split at Harrington to serve the east and west sides of the county. The Delmarva Secondary Track traverses Greenwood, Bridgeville, Seaford, Laurel, and Delmar, continuing into Maryland. The other branch, also known as the Indian River Secondary Line, runs through Milford, Ellendale, Georgetown, Millsboro, and Frankford. The Maryland and Delaware Railroad (MDDE) switches cars with Norfolk Southern at Frankford and supplies points south in Maryland. MDDE also delivers freight to the Eastern Shore of Maryland via Seaford. The Delaware Coast Line railroad serves points from Georgetown to Gravel Hill and Lewes on a state-owned line. Major commodities transported by rail include coal, grains, and rock aggregate. Most rail cargoes are inbound, with little product being exported via rail.

The Sussex County Freight Lines map depicts the rail freight lines within Sussex County.

### Sussex County Rail Freight Lines



Source: DeIDOT, 2007

### Airports

There are two public-use airports within Sussex County and many private-use airports authorized as a conditional use by the county. The two public-use airports are licensed by the state and are inspected on a regular basis for safety and security. These airports are closely monitored for encroaching development or obstructions that would negatively affect safe aviation activities. The surrounding land use should be compatible to airport operations. Residential development is not a compatible land use. Residential usage negates the long term economic value of this land.

Sussex County is the only publicly owned airport in the county. As such, it is eligible for funding from the Federal Aviation Administration (FAA) for expansion and safety improvements. The state and the county provide the match funds for all eligible FAA projects. Sussex County Airport is currently planning a runway extension to accommodate larger planes that will support the business operations at the Sussex County Aero Park. As part of the runway expansion and realignment of Park Avenue, the County and the State should upgrade all of Park Avenue to accommodate the increase in truck traffic to the Aero Park and to improve access to the airport terminal.



Laurel Airport is privately-owned, but open to the public for aviation activities. The Laurel Airport is not eligible for FAA funds but the state provides limited funding for safety improvements. The primary operations out of this airport are sky diving and aerial application for mosquito control and agricultural purposes.

Both airports have a significant economic impact in the county and have capacity to expand operations.

The private-use airports are only regulated by the Federal Aviation Administration (FAA). There are currently no state regulations for privately-owned airports within Delaware.

There are several commercial service airports serving Sussex County residents. They are Baltimore/Washington International Airport, Philadelphia International Airport, and the Salisbury-Ocean City-Wicomico Regional Airport in Salisbury, MD. The largest commercial service airports near Sussex County are Baltimore/Washington International Airport and Philadelphia International Airport located 96 miles and 106 miles from Georgetown, respectively. The closest scheduled service airport is the Salisbury-Ocean City-Wicomico Regional Airport, located approximately 30 miles south of Georgetown.

The following map shows the county's two airports.

Sussex County's Airports



Source: DeIDOT, 2007



The county is also home to PATS Aircraft, with two locations in Georgetown. Their two facilities are used to retrofit airplanes and have had an important economic impact on the county. Furthermore, the Sussex County Airport Business Plan completed in June 2006 recommends an expansion of its runway as well as attraction of additional corporate aviation and the expansion of the DeCrane manufacturing base—all crucial to improving the economic development of the county.<sup>2</sup>

## **Ferries**

Lewes is on the southern end of the 17-mile Cape May/Lewes Ferry Route operated by the Delaware River and Bay Authority (DRBA). The ferry operates daily, year round, depending on weather conditions. Each ferry is equipped to hold approximately 100 vehicles and 800 passengers. According to the current schedule, the ferry makes the 80-minute one-way trip 13 times daily during the summer season (end of June through September) and six to seven trips daily for the remainder of the year.

The annual Cape May/Lewes Ferry ridership has a significant economic and transportation impact in Sussex County. Approximately 351,188 vehicles passed through the ferry terminal in Lewes in 2006, and the ferry carried almost 1.188 million passengers in 2006. Many of those passengers are foot passengers traveling to Lewes and the resort area for tourist attractions, including recreation, shopping, and dining that they can access by local transit services. Many of the other passengers traveling by car use the ferry as part of the transportation system of Sussex County, connecting them to destinations outside of the county. The ferry plays an important role in the Sussex County transportation system and should be strongly supported.

During the summer season, the DRBA provides shuttle buses to take foot passengers to downtown Lewes, the Rehoboth Outlets and to the Rehoboth Park & Ride lot connecting to DART transit services.

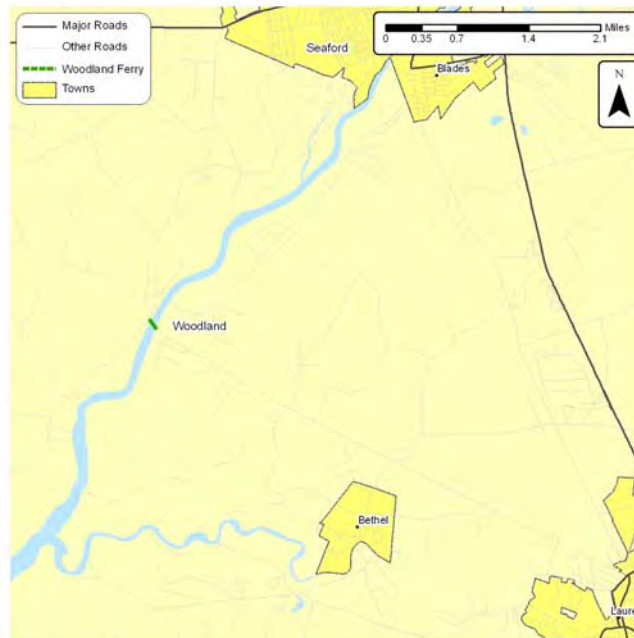
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<sup>2</sup> Sussex County Airport Business Plan, Technical Report, June 2006

### Cape May-Lewes Ferry



### Woodland Ferry



DeIDOT operates a free, small ferry across the Nanticoke River at Woodland, Seaford connecting to the Laurel side of the river. The ferry service has been operating since 1793; DeIDOT took over the operation in 1935. It is a tourist attraction and carries approximately 75,000 vehicles per year. The ferry operates from dawn to dusk and currently carries three vehicles per trip. However, the ferry vessel will be upgraded to carry six vehicles in the near future.

During Summer 2007, the Woodland Ferry was closed for 2.5 weeks (but operational on weekends) to allow DelDOT to conduct necessary pre-construction work. The newly built Woodland Ferry and new docks, pilings, and bulkheads are scheduled to be completed in late 2008.

### **Evacuation Routes**

Sussex County is susceptible to flooding and coastal storm damage, with approximately 48 percent of the County's housing units identified as "vulnerable" during a Category 4 storm.<sup>3</sup> This figure jumps to 82 percent when only seasonal homes are considered.<sup>4</sup> As a primary contributor to Delaware's tourism industry, traffic congestion frequently impedes travel to and within these areas. DelDOT has expended considerable effort to develop plans that allow for safe and efficient evacuation from the resort areas when they are affected by storms or other events requiring mass departure.

Evacuation routes statewide are determined by Transportation Management Teams (TMTs). TMTs are part of DelDOT's transportation management program known as DelTrac. TMTs bring together personnel and resources from police, fire, rescue, emergency management, transportation, communications, environmental protection, public works and other agencies to improve safety and reduce delays during incidents, events and emergencies that impact Delaware's transportation system. In Sussex County, coordination with officials in Maryland and Virginia frequently occurs to focus on routes and demand and make real-time adjustments to coordinate the evacuation of the entire Delmarva Peninsula when necessary.

The composition of a TMT depends on the nature of the event or incident. They also work to prevent secondary incidents triggered by the original incident. There are six TMTs in Delaware, with three located in Sussex County, divided into US-13, US-113, and SR-1/beaches. Each TMT has developed a Traffic Control Plan for incidents that close sections of the state's major road network. The TMTs have also developed detailed traffic control plans to be used in conjunction with evacuation plans. The plans for each county are being integrated into one statewide plan which is in turn being integrated with the plans from neighboring states.

TMTs respond to planned events such as sporting events, fairs and shows, anticipated heavy volumes such as summer weekend beach traffic and other planned events. TMTs are also ready to respond to unplanned incidents and events such as hurricanes, floods, snowstorms, serious or hazardous materials accidents, natural gas leaks, major fires, a nuclear event or terrorist attack.

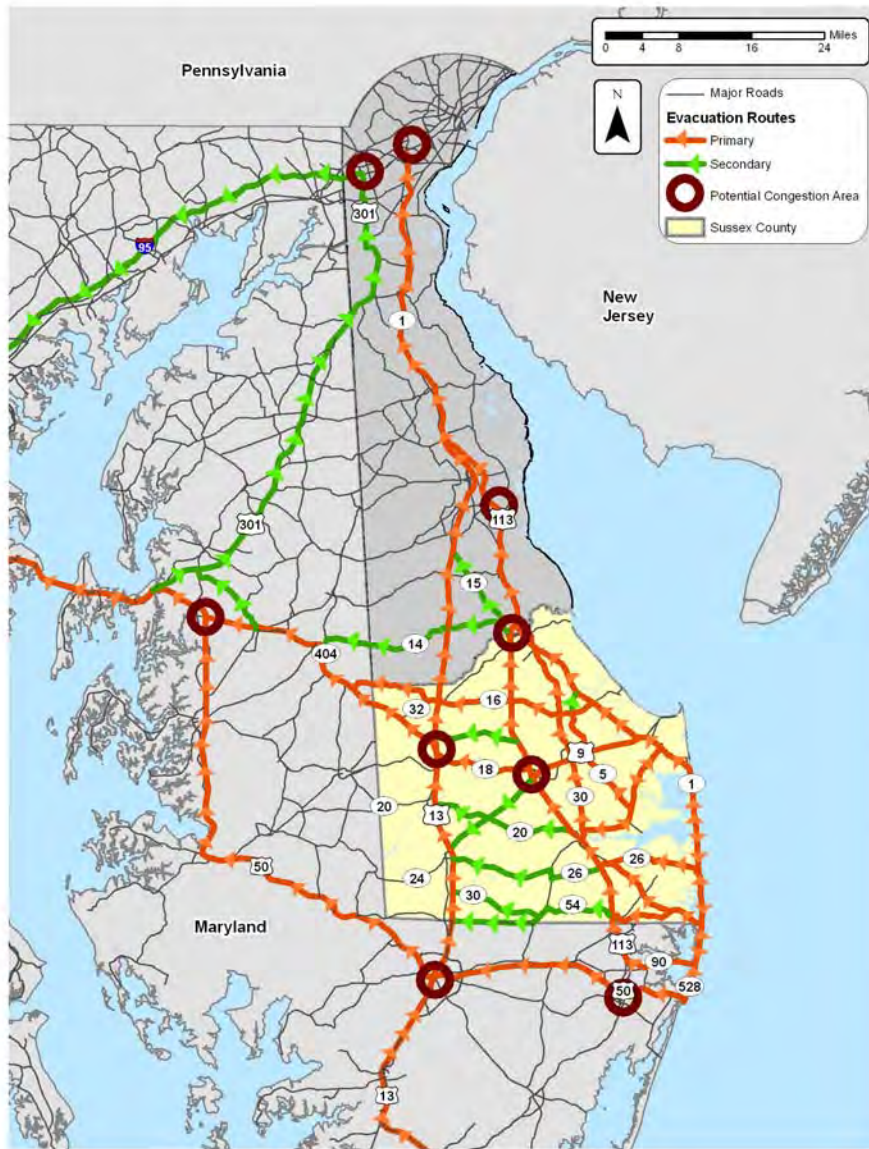
Primary and secondary evacuation routes are identified based on Army Corp of Engineers tidal inundation maps that show areas prone to flooding during severe storms. Secondary routes are used to direct local residents to primary evacuation routes or used to reroute traffic if a primary evacuation route becomes impassable. Currently traffic management and control is provided at 39 critical intersections in the County.

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<sup>3</sup> Statewide Evacuation Plan Presentation, September 27, 2006

<sup>4</sup> Ibid.

### Evacuation Routes

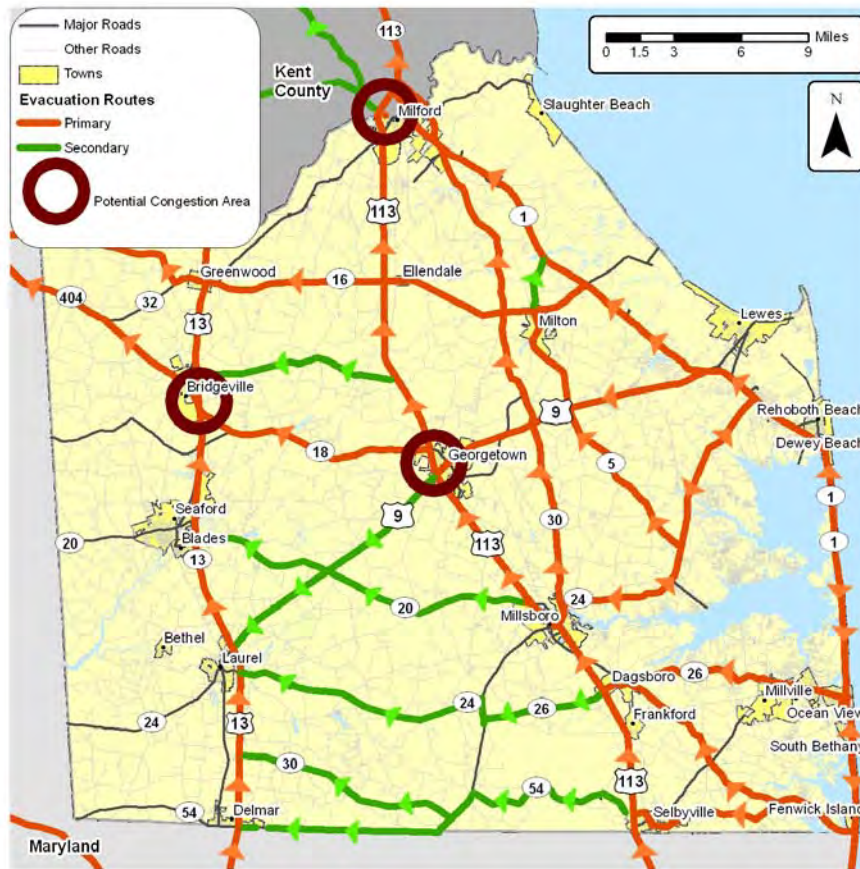


The All Hazards Evacuation Annex, the Transportation Incident and Event Management Plan for Sussex County was released in May 2006. The annex primarily focuses on tidal inundation incidents and events that may impact Sussex County including hurricanes, nor'easters, coastal storms, tidal or storm surges, and heavy rains. It may also be applied to other events that may require mass evacuation such as chemical spills or terrorist actions. The plan outlines the activities that are to take place between the TMC and Sussex County TMT to manage the transportation system and protect life and property during an incident or event that threatens Sussex County. All decisions are based on complete evacuation by the time 40MPH sustained winds reach land. It is estimated that it would take 24-36 hours to evacuate the coastal areas, however the start of an evacuation is not based on the eye of the storm, but the arrival of heavy rain bands surrounding it. DelTrac's goal is to evacuate before the heavy rain bands arrive and

cause flooding. Fortunately, during the summer season a majority of the coastal population are visitors that would be evacuating back to their primary residence, not relocating them.

In 2004, DeIDOT released the DeIDOT Transportation Incident and Event Management Plan. Its purpose was to define the communication, response, and responsibility procedures in the event of statewide emergencies. The following map represents evacuation routes through Sussex County. Recommendations from the plan are still being implemented.

### Sussex County Evacuation Routes



Source: DeIDOT, 2007



## **Air Quality**

The Clean Air Act of 1970 and the Clean Air Act Amendments of 1990 both have significant implications for the planning of transportation programs and facilities. The Clean Air Act is the comprehensive federal law that regulates emissions from sources such as cars, trucks, buses, farm equipment, and factories.

Sussex County is located in the Environmental Protection Agency's air quality monitoring region III, which includes the mid-Atlantic states.<sup>5</sup> This essentially means that transportation planning cannot and should not worsen environmental goals and policies to ensure clean air.

Recent modifications in federal legislation made the issue of air quality for Sussex County more important, in that, if one of the counties, Kent or New Castle County became a "non-attainment area" then Sussex County would automatically be considered non-attainment and therefore Delaware's federal highway funding would be in jeopardy.

A contributing factor to air pollution in Sussex County is the average age of vehicles. Older vehicles do not have the more fuel-efficient systems that are found in newer models. Stricter emission testing will probably be required in Sussex County within five years of this plan implementation. New emission testing will bring Sussex County in line with emission standards and testing in other two counties, Kent and New Castle, as well as other counties along the East Coast. The equipment and testing infrastructure are already in place in the vehicle inspection station in Georgetown.

## **Vision Statement**

The long-range vision for this Mobility Element is similar to that presented previously. This Mobility Element continues to use this vision to help identify the transportation system improvements that are necessary to achieve the county's desired future. Two new vision statements have been added to reflect recent areas of new focus.

The following vision statements describe how growth and improvements to Sussex County's transportation system are to be managed:

1. Sussex County will continue to enhance its emergency evacuation program.
2. A corridor preservation program will be enhanced with necessary access controls to maintain highway capacity.
3. A greater emphasis will be placed on managing existing roads rather than building new roads, and on widening roads only when necessary.
4. Special development zones, with appropriate infrastructure to support growth, will be created in selected areas to promote industrial and commercial expansion. Industrial

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<sup>5</sup> <http://www.epa.gov/region03/about.htm>



- districts will be located close to major transportation infrastructure, including both highways and rail lines.
5. Accessibility of the transportation system will continue to be improved through accommodations that support senior citizens and help the County remain an attractive place for retirees.
  6. The public transportation system will be improved and expanded to provide greater access to job opportunities, education, services, and recreation for residents.
  7. A greenway system connecting wildlife and rural areas will be created, protected by regulation, and will include paths for bicycling and walking.
  8. There will be a variety of transportation means for tourists to travel to and within resort areas.
  9. Economic development, including tourism and job creation, will be given high priority in transportation decision-making.
  10. Local road improvements will be given high priority to benefit residents and businesses.
  11. Better coordination between and among municipalities, and county, state, and local government agencies will take place to help facilitate sub-area planning efforts.
  12. Air quality will receive increased attention, particularly to address non-attainment issues and emission testing requirements.

## **Mobility Strategies**

An analysis of the key trends and their implications continues to show that the majority of issues identified in the 2001 Plan are still valid. Congestion on major north-south and east-west routes continues to grow, and the need for alternatives to a single-occupant vehicle is still a major concern of Sussex County residents and visitors. The six issues and strategies identified in the previous plan were revisited and modified to reflect current and identified future needs. These activities are labeled as *Issues with related Strategies and Actions*. Two additional issues are included in this plan: **air quality and sub-area planning**. These two areas have increased in significance over the past six years, and addressing them as part of this Mobility Element is critical to providing the transportation facilities needed to support growth and development.

- **North-South Movement**

Issue

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

Strategy

Preserve and increase capacity on existing major north-south routes while pursuing plans for a north-south limited access highway on existing or new alignments. Focus on sub-area plans for US-13 corridor (see Sub-Area Planning Issue).

Actions

1. Continue to support implementation of improvements designed to preserve and increase capacity on US-13, US-113 and SR-1 in cooperation with DelTrac.
2. Continue working with DelDOT on the recommended improvements to US-113 identified in the US-113 North/South Study from north of Milford through Selbyville to the Maryland line.
  
3. Work with DelDOT to implement recommendations of the SR-1 Land Use and Transportation study, such as:
  - a. Five Points Interchange
  - b. Future Local Transportation Connector
  - c. Sidewalks along SR-1 in Rehoboth/Lewes area
  - d. Wescoats Corner Improvements
  - e. Additional Park & Ride location
4. Work with DelDOT to implement improvements to on the SR-1 / SR-16 interchange.
5. Support construction of Indian River Inlet Bridge.
6. Support DelDOT in the implementation of variable message signs on key north-south roadways for the purpose of redirecting traffic.

- **East-West Movement**

Issue

There is a need to accommodate significant cross county traffic between towns, education and health care facilities and other essential services while preserving mobility for local residents and access to local businesses. In recent years, as the attraction of the coast has grown and residential communities expand, improvement to east-west movement has become a key priority.

Strategy

Complete recommended interim 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.

Actions

1. Support DelDOT in completing intersection improvements, shoulder widening, and alignment improvements recommended in east-west corridor study.
2. Support DelDOT in undertaking / completing bypass studies for Georgetown, Bridgeville, Laurel, and other communities affected by tourist or heavy truck traffic.
3. Work with DelDOT to review current and future growth areas to determine adequate roadway capacity.

4. Encourage DelDOT to conduct a planning study to determine needed connections to the east and west from the proposed north-south limited access highway.
5. Pursue local road network improvements in conjunction with DelDOT.
6. Request that DelDOT implement variable message signs on key east-west roadways.
7. Coordinate with DelDOT and Maryland on the widening of US-404.
8. Work with DelDOT on sub-area plans to accommodate local traffic.

- **Evacuation Routes**

Issue

Many residents are unaware of existing evacuation plans. The perception exists that current evacuation routes become congested easily and are prone to flooding in severe storms.

Strategy

Continue to provide safe and efficient evacuation routes by implementing the recommendations of the Evacuation Route Study (1990), and the operations concepts identified in the All Hazards Evacuation Annex of the Transportation Incident and Event Management Plan for Sussex County (2006).

Actions

1. Coordinate with DelDOT to enhance current evacuation routes.
2. Help determine ways to address flooding on SR-1 and SR-26.
3. Work with DelDOT to identify other local routes that could serve as alternative evacuation routes.
4. Continue working with DelDOT, Maryland State Highway Administration (MSHA), and Maryland counties in designation of evacuation routes between Maryland and Delaware.
5. Work with DelDOT's implementation of a comprehensive information system for motorists using signs, radio, and other means, to identify and promote preferred routes.
6. Work with DelDOT in planning for specific evacuation routes and in developing plans for each resort city. Assist in the distribution of these plans when complete.
7. Support DelDOT in addressing the evacuations of persons with "atypical" needs, including their pets, as part of plans' completion in 2008.
8. Support DelDOT in the completion and implementation of a debris management plan due in 2008.
9. Work with DelDOT in focusing on specific routes of concern:
  - Route 24
  - SR-1 Dewey Beach to SR-16
  - SR-26
10. Support DelDOT in the continued implementation of DelTrac, with specific improvements to include:

- 44 additional signals on computerized system.
  - Expanding WTMC AM 1380 radio coverage in the county.
  - Performing roadway and intersection improvements:
    - SR-1: adding third lane from Bay Vista Road to Shuttle Road
    - SR-1 and SR-5: adding left turn lanes
    - US-113 and SR-9: changing from split phase to concurrent left turns
    - SR-24 and Rd 275: providing for two through lanes east and westbound
  - Completing improvements to the Traveler Information Systems through 31 additional closed-circuit televisions and 18 additional variable message signs.
  - Continuing expansion of traffic detection system.
  - Implementing additional roadway weather monitoring sites.
  - Continuing enhancements to DelDOT's real time travel information web site.
11. Urge DelDOT to perform pre-engineering for installing Monitoring and Detection Devices.

- **Coordinated Public Transportation Services**

Issue

Sussex County is the largest in Delaware in terms of land area but the smallest in terms of population. Because of sprawling development patterns there only a few fixed public transportation routes and many residents rely on paratransit services that provide transit to low income, disabled, elderly, and other transit dependent populations. Matching multiple origins and destinations requires coordination among Sussex County's multiple transportation providers. A number of barriers to efficient transit service have been identified in the county, including a lack of centralized information, coordination of resources, adequate funding, weekend and evening service, and accessible taxis. The cost of providing a door-to-door paratransit type service to residents has become a financial challenge to the state. The increasing concern of funding transit service in Sussex County coupled with the fact that over 30 percent of the population will be over the age of 65 by 2030, will present a challenge in moving people to jobs, health care, recreation and other related activities.

Strategies

DelDOT and Delaware Transit Corporation has started to conduct a service coordination planning process to exchange information on travel demand and supply, minimizing the cost of supplying transportation and maximizing the coverage and quality of transit service in the county. The goal of this effort is to create a mechanism that will enable providers and other stakeholders to exchange information on a regular basis and to work together where appropriate to minimize resources needed to provide an improved level of mobility for human services transportation users and maximize the quality and quantity of transportation options available.

Actions

1. Urge DTC to convene a Mobility Board composed of transportation providers, providers of human services, and members of the public (e.g., individuals with disabilities, older adults, and low income individuals) who can provide insight into local transportation needs.
2. Help DTC identify a ‘Mobility Manager,’ who will serve as the county’s chief point of contact on issues related to Coordinated Human Services Transportation Planning.
3. Work with DTC to develop an updated competitive grant application process for FTA Section 5310, FTA Section 5316, and FTA Section 5317 to ensure compliance with FTA rules and regulations.
4. Recommend that DTC examine best practices in other states and regions to help inform Sussex County’s process.
5. Work with DTC to develop a rational, equitable, and objective method for evaluating candidate proposals and apportioning the available funds.
6. Support DTC in conducting public outreach.
7. Work with DTC to identify performance measures and reporting requirements that allow comparisons among providers in terms of efficiency and effectiveness.

- **Travel Alternatives**

Issue

The basic mobility for residents in Sussex County is walking, but there continues to be a lack of adequate pedestrian facilities throughout the county. Many people, including students, persons with disabilities, the elderly, and those with low incomes, have limited access to cars and therefore find travel difficult. Infrastructure for alternative transportation modes such as transit, pedestrian, and bicycle facilities are becoming increasingly important; giving residents and seasonal visitors alternative means of travel to work, shopping, and public facilities. Lack of mobility also poses a significant problem for employers and creates demand for social services.

Strategy

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



Actions

1. Urge DTC to 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. Encourage exploration of public/ private partnerships to initiate and/or help provide such services and technologies.
2. Advocate that seasonal bus transit services be targeted to provide travel alternatives in times of heavy congestion in coastal areas.
3. Partner with DeIDOT and others to reserve heavily used rail corridors and encourage greater rail use for movement of goods.
4. Encourage DeIDOT to make use of under-utilized rail lines for bicycle and pedestrian trails.
5. Support DeIDOT and DTC in providing safe bicycle and pedestrian mobility, access, and connections between modes.
6. Recommend the installation of infrastructure that supports travel alternatives such as passenger shelters, sidewalks, signs, crosswalks and bike racks.
7. Support DTC and DeIDOT in the development of educational, promotional, and marketing materials and messages that identify and encourage the use of alternative forms of transportation.
8. Support DeIDOT in the continued use of bicycle safety check points to provide educational information regarding the safe use of bicycles.
9. Work with DeIDOT to continue to plan, design, and construct additional off road multi-use trail facilities.
10. Encourage that bicycle facilities are designed to match the needs of their users—commuting or recreational.
11. Develop a policy with DeIDOT to ensure that a sufficient pedestrian network is developed within the areas designated for growth to complement proposed land use policies.
12. Work with DeIDOT to implement and monitor the preliminary recommendations developed in the Delaware Statewide Pedestrian Action Plan, including related outreach in Sussex County.
13. Identify the roles of the State, Municipalities and DeIDOT for maintaining current and future pedestrian facilities.
14. Support DeIDOT in developing strategies that will increase participation in the Safe Routes to School program by emphasizing the importance and benefits of walking for children.
15. Work with DeIDOT to encourage groups to pursue Scenic and Historic Byways designation.
16. Encourage expansion of the Sussex County Airport as noted in their Business Plan.
17. Work to encourage the concentration of development at locations and densities that will support transit services.

- **Intergovernmental Coordination**

Issue

Appropriate transportation facilities and sound transportation investments will not happen without ongoing coordination and cooperation between different levels of government. Furthermore, transportation planning and land use decision-making, economic development strategies, agricultural land preservation, and environmental resource protection must be pursued in an integrated, coordinated fashion or else they will tend to undercut rather than enhance each other. To best realize the cumulative effects of development, planning in Sussex County must be coordinated to maintain a regional perspective on the goals and challenges of growth.

Strategy

Strengthen communication and coordination at State, County and local level in order to maintain an efficient transportation infrastructure necessary for interconnectivity, responsible land development, and economic vitality.

Actions

1. Work closely with DelDOT and municipal entities to understand the impacts of transportation facility and service decisions on land use patterns and land use decisions on the transportation system.
2. Develop sub-area plans with DelDOT and municipalities to better plan for future growth and required infrastructure.
3. Support DelDOT in maintaining consistency between transportation improvements and state spending strategies.
4. Help ensure that transportation plans and strategies are coordinated with applicable state and federal priorities and mandates including the Safe, Accountable, Flexible, Efficient Transportation Equity Act; the Clean Air Act; and Livable Delaware Initiatives.
5. Work with DelDOT's Secretary of Transportation and County Council to jointly establish a formal, funded, ongoing review and advisory group, similar to a Metropolitan Planning Organization (MPO), comprising 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.
6. Partner with DelDOT to demonstrate stewardship of public funding through efficiency in all aspects of transportation development, management, operation and maintenance.

- **Air Quality**

Issue

Before 2004, Sussex County occupied a marginal status relative to air quality and as such was not subject to the more restrictive federal rules and controls affecting the northern two counties. However, new federal regulations have incorporated all three of Delaware's Counties into a single ozone non-attainment area subject to the same rules and restrictions. Additionally each county must periodically prove that planned transportation projects will not adversely affect the state's air quality as a whole. Should any County fail to meet these federal air quality rules the entire state will become subject to severe restrictions concerning the availability of federal transportation construction funding. Sussex County will need to find ways of generating air quality credits to offset increased emissions from new transportation projects.

Strategy

Currently, emissions testing in Kent and New Castle Counties include a feature called On Board Diagnostics (OBD). New legislation could require that vehicles in Sussex County undergo periodic emission testing using the OBD procedure. The OBD test procedure is a much more accurate and complete evaluation of the vehicle's operating parameters and produces a much more precise measure of actual emissions. This more precise testing methodology will generate emissions credits that may be used to allow construction of much needed congestion management and expansion projects throughout the County. The County should consider the following actions to improve its air quality and prepare itself to submit to mandatory OBD testing:

Actions

1. Support DelDOT in the preparation of air quality analysis to determine exact emission reduction (emission credit) that can be reached through the adoption of countywide OBD Inspection and Maintenance (I/M) test procedure.
2. Work with State Legislators, DelDOT and municipal officials to prepare a prioritized list of likely congested management expansion projects agreeable to all parties.
3. Urge DelDOT to prepare itemized estimate of financial cost of converting existing testing facilities to OBD I/M capability, as well as additional personnel required to operate the new procedure.
4. Support DelDOT in the development of a marketing plan to sell conversion to OBD I/M testing as green light for long awaited project work on SR-24, 26, 54, and others.

- **Sub-Area Planning**

Issue

Development patterns due to increased population have left their mark on Sussex County, resulting in increased traffic congestion along major north/south and east/west corridors, loss of farmland and open spaces, air pollution, dependence on single-occupant vehicle transportation, and governments struggling to provide needed public services to these growing areas. This growth pattern has left some communities in Sussex County struggling with how to provide for the infrastructure to support this development. As development continues, the State, County and municipal governments should be looking at the coordination of land use and transportation decisions, better planning of local roads, connectivity between developments, and transportation alternatives to provide mobility for future generations.

Strategy

Sub regional plans are used by state, county and local governments as well as by private partners to evaluate the impacts of future growth on a smaller area, such as a district or watershed within a county. To better prepare for these impacts and to strengthen inter-governmental coordination, Sussex County proposes to prepare sub regional plans beginning in the areas noted below.

These areas have varying issues and concerns which, as development occurs over time, will require additional services and resources to address. County staff in cooperation with the state, local jurisdictions and private partners will further define these geographic regions, evaluate future growth trends, review existing services, identify needed improvements to existing services, further define and evaluate growth impacts, prioritize lands for possible preservation and create new funding sources for improvements. This planning process will incorporate significant public opinion to understand local needs. The sub regional plans also will include new Future Land Use Maps that will serve as amendments to the current Sussex County Comprehensive Plan.

Actions

1. Partner with DelDOT and respective municipalities to develop sub-area plans for the following areas or development districts:
  - Delmar Area
  - Milton Area
  - Seaford, Blades and Laurel Area
  - Millville-Ocean View Area
  - Greenwood / Bridgeville Area

2. Require greater coordination of plans made by all levels of government – e.g., county plans consistent with local plans, sub-area plans with county plans, and state policies with sub-area plans.
3. Work with communities to form joint or sub-area planning commissions, and work with DelDOT to encourage participation in county and sub-area planning efforts.
4. Ensure that the planning process includes opportunities for public participation to maintain the input and trust of local officials and the public, including notification of zoning or master plan decisions in neighboring communities.