

## Executive Summary Summary & Recommended Actions

This chapter presents the steps that Sussex County will need to take in order to address transportation challenges in the coming ten-year period. These strategies and projects will address congestion and traffic/transportation issues for county residents. It is imperative that the county and its leaders address these issues during this time frame to continually work towards the goal of providing comprehensive transportation options to its residents and the region as a whole.

This chapter will provide a summary of the work completed in the study and the conclusions that have resulted from this work as well as recommended actions for the coming years. The chapter is separated into three sections which provide information relevant to the study process and findings that are considered to be the core concepts that have resulted from the process. These sections are as follows:

- *Transportation Challenges* – The first section identifies a set of challenges and issues that have both resulted from the study process and represent challenges that will be faced during the implementation period for the plan.
- *Study Process & Findings* – This section presents the study steps and the key findings that have resulted from the overall process.
- *Action Steps & Strategy* – The final section presents the recommended steps that should be taken by Sussex County and its associated partners in order to address current and emerging transportation needs over the next 10 years.

These three sections are detailed below and should serve as a summary of the entire report. This summary will also be provided as a Powerpoint presentation that can be used to provide plan information to policy makers, agencies, employers and the general public

### Transportation Challenges

Sussex County residents currently face unique transportation issues and challenges which must be addressed by the county in conjunction with the State of New Jersey and adjacent counties in the coming years. These issues have been identified through this study process and most are well-known to transportation officials and policy makers in the area. The challenges for the coming ten-year period must be addressed so that the county will not “fall behind” by finding themselves in a setting of increased congestion and reduced economic activity by providing out-dated modes and forms of transportation options in the area.

The transportation challenges that will be faced by the county are presented below:

*Increased Growth & Congestion* – Both the county and the wider region have grown in recent years and are projected to continue to do so in the coming years. Employment and services locations will continue to spread which complicates growth and travel patterns. The origin and destination survey that was performed as part of the study indicated that travel patterns create an environment in which trips are difficult to serve with existing public transportation based on the

widespread origins and destinations of the employment commuter. This has created congestion issues which are faced daily by Sussex County residents, although much of this congestion occurs outside of the county. If left unchecked, however, this congestion will affect Sussex County roadways as traffic volumes and congestion continue to increase.

*Out of County Issues* – The majority of current congestion occurs outside of the county, as noted in the above challenge. In addition, most current public transportation options available for Sussex County commuters exist outside of the county. This creates jurisdiction issues for the county in trying to address these issues for the betterment of its residents. The adjacent counties as well as the state must be brought into the process in order to collectively identify and understand issues and develop regional solutions that will benefit all counties residents, employees, and visitors. The Five County Coalition, TransOptions, and state and New Jersey Transit officials must be part of the process to achieve these solutions.

*Lack of Non-Auto Options* – The lack of a public transportation infrastructure affects the ability of Sussex County and the wider region to address alternatives to the automobile for workers and other travelers. Inter-county bus and rail service does not provide a level of service that can meet the needs of local travelers. The lack of available resources creates difficulties in planning for future needs. There are plans for rail service that will be available to county residents which is encouraging but planning for ancillary services and additional connections must be done in order to address future congestion issues on Sussex County and regional roadways.

*Inability to Respond to Issues* – Based on the political, funding, and resource availability in recent years, the county has been unable to properly respond to transportation needs and to plan for transportation needs in the future. This inability has led to a stagnant situation in roadway and transit management while roadway volumes have increased. The county must be able to respond to emerging needs and address future needs in a rational and methodical manner in order to avert future transportation issues which may be much more intense than those currently experienced by Sussex County residents.

*Funding* – The recommended strategies that are included in this plan are provided without regard for the availability of funding. They represent the actions that need to be undertaken by the county to address congestion and transportation issues. Funding for these strategies and actions will be the responsibility of the county, regional members, and the state and federal government. Funding will have to be identified for this aggressive plan. In recent years, funding for transportation, and in particular public transportation, has been reduced, causing service level cuts in the region. While it is understood that funding is a constant concern and availability of funds does not always match the level of need, these challenges can only be addressed if adequate funding for them is located. *All strategies are dependant upon the renewal of both the Federal TEA-21 Transportation Bill as well as the NJ State Transportation Trust Fund.*

*Leadership & Political Will* – The most important ingredient to the success of this plan will be support and leadership by those in a position to address the challenges included in this plan. This includes county, state, and federal officials and local transportation professionals. The identification of priorities that will address future congestion will ensure that this plan is utilized properly. This plan has the ability to provide a proper blueprint for the local area to address transportation issues prior to their becoming “critical” issues that must be hastily addressed.

### Study Process & Key Findings

The study process entailed a wide array of tasks that were intended to develop an understanding of the current transportation setting in Sussex County and the surrounding area, an understanding of current, emerging, and future needs in order to develop a strategy for the coming ten year period. The process entailed intense outreach and survey efforts, unique public input methods, and comprehensive field investigation, analysis, and research. The major steps of the study process will be presented separately below.

The first portion of the study required intensive field work and research to provide an in-depth profile of the study area and its characteristics. Demographic indicators were developed to highlight the local setting through the use of GIS technology based on information from as many updated sources as possible. Information on the population and population projections were coupled with employment and travel patterns to identify the current and predicted setting for the county. Travel modes and means were highlighted to develop an understanding of the current commute times and patterns that are experienced by local commuters. The role and scope of public transportation as provided by Sussex County, New Jersey Transit, TransOptions and private carriers was provided to develop an understanding of the role that these service providers and agencies provide in the transportation setting and network in the local area. Through this work it was identified that the local population continues to grow and Sussex County will continue to act as a “bedroom community” as many residents will continue to access employment in other New Jersey counties and beyond. Based on travel habits, the current public transportation providers generally play a small role in overall mode share based on the lack of availability in the region. In addition, funding for these services has declined. The result of these factors has been increased congestion witnessed partially by an increase in average commute times by more than 5 minutes (between 1990 and 2000) for Sussex County residents.

The next major phase of the project, *which had never been done before, was to conduct a thorough origin-destination (O+D) survey of the major commuter corridors in the county.* These are all “hot spots” for traffic congestion. Interestingly, all three locations were at county exit points as commuters enter Morris County. The three locations were:

- Route 15
- Route 23
- Route 206

The roadside survey involved stopping traffic during the AM peak in order to distribute the survey postcards. The survey received a response rate of 42% which is excellent for such an effort. The survey instrument requested information with regard to origin and destination, trip purpose, numbers of persons in the vehicle, and roadways utilized. The overwhelming number of vehicles had a single occupant, although 10% had more than one person traveling which is a fairly encouraging number based on national statistics. The vast majority of trips were considered “drive only” trips that involved no other transportation modes. Based on the time period surveyed, the largest share of trips was employment related.

The majority of trips originated in Sussex County, which is to be expected. Local officials have indicated that through trips from Pennsylvania might have been slightly higher had the survey

been conducted earlier in the day (the survey began at 6am), but this would not have affected the overall conclusions of the survey significantly. The largest number of travelers originated in Sparta and Vernon, followed by Byram and Hardyston. The majority of destinations were within New Jersey, with over 50% of commuters traveling to Morris County, followed by Passaic and Essex Counties. Origin and destination pairings were widespread, but the most common movements were Sparta to Parsippany followed by a three way tie between Sparta and Rockaway, Vernon and Wayne and Sparta and Morristown. The survey provided an overall sense that commutes differ greatly and efforts will need to be taken to shape travel patterns through concepts such as Transit Oriented Development (TOD) and Smart Growth which seek to alter overall travel habits by creating ease of use for commuters. In addition, Transportation Demand Management (TDM) measures may be applicable to increase ridesharing and transit mode share.

Two methods of outreach were utilized to include public input into the study process. They provided excellent insight into the needs of the community when addressing transportation:

TransOptions conducted a survey of Sussex County Transit (SCTS) riders to gauge satisfaction with current services and provide a profile of a typical rider. This survey indicated that a typical rider utilized service for employment and rarely had adequate alternative means of travel. Riders were satisfied with the services but requested more frequent service to more destinations.

The other outreach technique that was utilized, which was very innovative and was the first time it had been used, was a web-based survey that was heavily promoted and run through the Sussex County website. In lieu of traditional outreach methods such as public meetings which generally garner very little attendance, the survey was developed through a collaborative process and marketed to three target audiences – the general public, social service agencies, and employers. There were 643 responses, which is a much higher rate than could be expected to attend even the best-advertised public meetings. The survey found that congestion is a common issue and concern for all groups, and that the challenges lay primarily in peak hours while entering or leaving the county. This finding corresponds to all other research to indicate that the majority of congestion in the near future will occur outside of the county, although it will affect Sussex County residents. Based on future projections, it can be assumed that this will affect county roads in future years as conditions worsen.

The remainder of the plan lays out a strategy for the coming ten year period. The strategy centers on four themes that have been borne out of the key findings that will be listed below. The four key elements of the strategy are as follows:

- Smart Growth
- Transportation Demand Management
- Transit Option Development
- Traffic Operations & Roadway Management

These strategies are common elements of a transportation plan, with Smart Growth being the most comprehensive strategy to be employed. Smart Growth, which is an emphasis of State of New Jersey planning efforts, seeks to direct development in a competent and reasonable fashion that will lessen the transportation burden on roadways and promote alternative transit modes.

These efforts are an integral part of developing a comprehensive transportation system to relieve future roadway congestion. The action steps developed from this strategy will be presented in the following section.

The key findings of the study that will be addressed in the following section include the following:

- Congestion is a major concern for commuters who reside or work in Sussex County. Congestion can be expected to worsen in coming years if no action is taken. This will eventually affect Sussex County roadways.
- Transportation challenges and solutions affect the wider region as evidenced by the out-of-county locations of current roadway issues. The solutions will require cooperation by the wider region as well as state and federal officials.
- Public transportation is unavailable as a key part of the infrastructure, which limits its viability as an alternative transportation mode. While current service provides a limited share of overall trips, investing in these modes will be critical to the future responsiveness of the overall transportation network.
- Disparate origins and destinations for work-based commuters indicate that transportation demand management will play a key role in immediate term strategies. TransOptions should seek to increase efforts for ridesharing, particularly among Morris County employers.
- Roadway capacity increases will not provide a desired affect of reducing congestion. Recent history has proven that volume expansion should be utilized only in select instances when this will improve traffic flow, rather than increasing overall usage.

### **Action Steps**

The four strategies presented above – Smart Growth, Transportation Demand Management, Transit Option Development, and Traffic Operations and Roadway Management, have been highlighted in the report with specific locations and concepts that should be implemented during the next ten years. It must be understood that these concepts are critical not only to address congestion, but also to ensure that the county does not fall behind in these efforts. If left unaddressed, congestion can be expected to increase and have a greater impact on regional travel and economic vitality. The strategies and concepts that have been included in the plan provide an overall blueprint for the county to address these issues. They have been developed irrespective of funding availability and political expediency. The strategies and concepts developed are those that will assist the county to properly plan for transportation needs in the future.

The four strategies presented have been detailed to include the locations and programs that should be employed as part of the ten-year transportation program. Each will be presented in brief below and a more thorough explanation is included in the full study document.

### **Smart Growth**

Smart Growth and Transit Oriented Development (TOD) will be the most critical issues for Sussex County to address in the coming ten-year period. These broad issues generally include

elements of each of the other three parts of this strategy (TDM, transit, roadway management). By tying development to land use through efforts to improve mobility for the individual and economic vitality, Smart Growth and TOD can provide the highest return in terms of congestion reduction and mobility improvements. These efforts must be addressed objectively by the county and include efforts to address the future of transportation and mobility in the county. The following centers have been identified for Smart Growth and/or TOD efforts:

- Andover Borough and Township
- Newton
- Vernon
- Stockholm
- Hopatcong
- Sparta
- Stanhope
- Byram

### Transportation Demand Management

Transportation Demand Management (TDM) measures seek to alter travel habits through alternative modes to address congestion issues. TransOptions, the local Transportation Management Association, is charged with these efforts for Sussex County. These efforts include ridesharing, employer-based efforts, marketing, and trip management. Sussex County should work with TransOptions to address the following issues for Sussex County commuters:

- Ridesharing & Vanpooling
- Emergency Ride home Programs for Transit & Ridesharing Clients
- Park & Ride Development
- Telecommuting
- Work Shift Distribution
- Commuter Incentives
- Mobility Management

### Transit Option Development

The challenges presented earlier in this summary chapter indicate that a lack of transit infrastructure creates a challenge for the county as it seeks to increase modal alternatives for residents in the coming years. The County will need to address both inter-county and intra-county transit in order to develop appropriate modal alternatives as congestion increases. Transit services have suffered from a lack of funding in recent years, resulting in a general reduction in service that will negatively affect future efforts for Transit Oriented Development and other efforts to increase transit availability.

#### Rail Options

There are four major elements of the strategic rail program for Sussex County, as follows:

- Develop Stations in Andover Township on the Lackawanna “Cut-Off” and in Stockholm and possibly Sparta on the NYS+W rail line
- Station improvements in Dover
- Establishment of rail shuttle service linking in-county locations to out-of-county stations such as Dover and the future Mount Arlington station.
- Participation in out-of-county cooperative arrangements to provide shuttle services between destination rail stations and employment centers, with the goal of improving service to the entire transit trip. This should be done in cooperation with TransOptions and other TMA’s.

### Bus and Paratransit Options

A set of strategic implementation options for bus and paratransit services were developed to address the ten year mobility needs of Sussex County, covering rail shuttles to enhance the rail options discussed above, inter-county express bus services, and intra-county service improvements. Briefly summarized, the recommendations are as follows:

- Inter-County Bus Improvements
  - Adjustments to existing bus and shuttle services to optimize expenditures on productive transit lines and to improve availability and frequency of service
  - Provide services to additional destinations either by direct lines and / or improved access to other existing bus lines.
  - Provide, through the TMA, supportive services for low-frequency transit lines such as guaranteed ride home, that will make use of bus service more convenient.
- Intra-County Service Improvements
  - Improve the availability and frequency of intra-county services
  - Transit infrastructure improvements
  - Customer service improvements

The next step in the planning process is to translate the strategic initiatives into short range, actionable items. The tool for this is the development of an updated short range transit plan, which would include detailed operating, management, and performance analyses and recommendations, accompanied by a financial plan including operating and capital costs for five years, ridership and revenue projections, and funding source analyses.

NJTransit staff, in their review of the draft report, and in subsequent discussions, has indicated their plan to require county level studies of this nature beginning in 2006. Furthermore, NJTransit staff, in a review of the draft report in March, 2005, generally supported the project findings, the need for more funding, and the specific recommendations for service improvements and expansion. Other items, not covered in the scope of this project, but which will support the recommendations, would be incorporated, as in the past, in the short range transit study:

- An evaluation of the vehicle fleet and development of a five year capital plan;
- An evaluation of the maintenance function, staffing, and spare ratio;
- An organization, management, and staffing review to ensure adequate support for the program;

- An evaluation of the customer service, advertising, and marketing programs; and
- Surveys and discussions with other human service agencies to further coordination of services in the county.
- Detailed recommendations concerning service planning and short term (1-5 years) changes, taking into account the need for transit system growth based on projected activity increases in the County.

### Traffic Operations & Roadway Management

Traffic operations and roadway management efforts will provide the final element of the overall strategy for Sussex County. The major congestion locations, as noted in the transportation challenges, lay outside of the county. However, if these and other traffic and roadway issues are not addressed, Sussex County can expect to experience worse congestion that extends into the county in the future. The following roadway and traffic issues will need to be addressed:

- Intra-County Roadway Work
  - Route 94 in Vernon Township, in conjunction with Mountain Creek
  - Safety Improvements on Rt. 23 Hardyston
  - Rt. 206 at Andover Borough, Byram, & Newton
  - Rt. 15 from Route 181 to Lafayette Village
  - Route 515 in Vernon Township
  - Route 616 / 517, Newton Sparta Road
  - County Route 605 Extension
- Park & Ride
  - New Park & Ride at Rt. 23/ Rt. 94
  - Expansion of existing Park & Rides at Blue Heron, Ross's Corner, Sparta, Byram, Newton, & Sutton Plaza
- Out of County Operations & Management
  - Improved management of Rt. 15 approaching I-80, including Berkshire Valley Road. Activities could include balancing of access to I-80, implementation of bus queue-jumpers, bypass lanes for rail bus shuttles, and localized intersection improvements.
  - Park & Ride and rail station at Mount Arlington
  - Parking improvements at Dover rail station

### Strategy & Implementation Timeline

The table on the following page provides a timeline and summary of the recommended actions that make up the overall transportation strategy for the coming ten year period. The recommendations provide an effort to create a balanced transportation strategy that will allow the county to anticipate and address issues prior to their reaching a critical stage that greatly affects residents mobility and the county's economic vitality.

# Sussex County Ten-Year Mobility Plan: Vision, Strategy & Actions

**VISION**

*The Sussex County Ten Year Mobility Plan provides the county with strategies to address transportation needs in the coming years in a methodical and measurable manner. The plan identifies options which have the greatest potential for reducing traffic congestion, improving environmental quality and, promoting sustainable growth. The strategies and actions presented below offer a balanced transportation network for Sussex County and the region.*

**STRATEGY**

Smart Growth/ TOD	Transportation Demand Mgmt	Transit Option Development	Roadway & Traffic Ops.
Transit Oriented Development Town & Regional Centers Mixed Use Development Transit-friendly design Alternative Mode Development Transit Links	Ridesharing & Vanpooling Emergency Ride Home Park & Ride Promotion & Development Telecommuting Options Work Shift Distribution Commuter Incentive Programs Mobility Management Services	Rail Development Inter-County Bus Improvements Enhanced Intra-County Bus Service Rail Shuttle Development	Intra-County Roadway Mgmt. Park & Ride Expansion Rail Station Access Out of County Improvements Safety & Traffic Operations

**ACTIONS**

Immediate Actions (0-2)	Mid-Term Actions (3-7)	Long-Term Actions (8+)
<i>County Wide Access Management Improvement</i> <i>Improve Roadway Safety</i>  <i>Implement TDM Measures</i>  <i>Increase Intra-County Bus Service Levels</i> <i>Improve Intra-County Bus Infrastructure</i>  <i>Increase Park &amp; Ride Availability</i> <i>Enhance Inter-County Bus Service</i>  <i>Smart Growth &amp; TOD Plan Development</i>	<i>Smart Growth &amp; TOD Implementation</i> <i>Enhance Regional &amp; Town Centers</i> <i>Promote Mixed-use Development</i>  <i>Traffic Operations Improvements (intra-County)</i> <i>Address Regional Roadway Issues</i>  <i>Establish Rail Shuttle Service</i> <i>Implement Rail Service &amp; Develop Stations in Sussex County</i>  <i>Park &amp; Ride Development</i>	<i>Implement Smart Growth &amp; TOD</i> <i>Establish Transit Villages</i>   <i>Establish Rail Enhancements</i> <i>Develop Rail Shuttle Program</i>