

South Jersey Transportation Planning  
Organization

# Regional Transportation Plan 2040

## *Technical Appendix #1: Demographic Forecast*

SJTPO

July 2012

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# ***SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION***

## **2040 DEMOGRAPHIC FORECAST**

### **I. PURPOSE AND METHODOLOGY**

#### **Introduction and Purpose**

The South Jersey Transportation Planning Organization (SJTPO) solicited proposals for population and employment forecasts in May of 2010. The *Center for Regional and Business Research (CRBR)* at Atlantic Cape Community College was awarded the contract in November 2010. Completion, originally scheduled for June 2011 was extended to July 2011. The *CRBR* performed the previous set of forecasts completed in 2006. The project proposal can be found in **APPENDIX A.**

The forecasts requested in the RFP, and later amended in Appendix 1 of the Scope of Services, serve as input to SJTPO Regional Transportation Plan, South Jersey Travel Demand Model, and the Environmental Justice Analysis that are used for regional transportation planning.

As compared to the 2006 projections, this project differed in two important ways. First, the availability of Census 2010 data brought some of the data elements up to the very recent past. In 2006, the most recent data was already six years old in most instances. In addition, the American Community Survey (ACS) was not yet well-developed. However, in the current set of projections, historical data from 1990 to 2010 could be found in both the ACS conducted in 2007 – 2009 and the first releases of the 2010 Census.

The second important difference is the timing of this project in the economic cycle that has now lasted from 2006 to 2011. Many of the data elements show distinctly different patterns from 1990 to 2005 and from 2006 to 2010. The onset of the ‘Great Recession’ caused many of the trends to reverse themselves in the latter period, especially compared to the extremely expansionary period of 1998 – 2006.

In short, in the field of economic forecasting it becomes necessary to decide whether or not the latter pattern is the long-term norm or if the older, higher growth period is more representative of the future. This is part of the justification for the use of a consensus forecast approach as will be explained in more detail below. The consultation with the projections of a number of third-party vendors gives a more balanced perspective than one done based solely on a past performance which is inconsistent. They have the ability to gather more input from a wider variety of stakeholders and focus on the bigger picture rather than an individual region or county.

Due to the large volume of both historical and forecast data, this report presents only a small fraction of the project's required information. The tables and graphs in this report are generally for the SJTPO Region or counties. The data report tables in their entirety were delivered to the SJTPO in electronic format, mostly in spreadsheet format.

### **Scope of Work Components**

The forecasts presented in this report were prepared at the following geographic levels: SJTPO Region (which includes Atlantic, Cape May, Cumberland and Salem counties), county, municipal and, where needed, the Traffic Analysis Zone (TAZ) level. The time periods encompassed included historical data for 1990 to the latest date of availability, and forecasts for 2015 to 2040 in five-year increments.

The following tasks were included in the Scope of Work:

#### **1. Core Data Requirements:**

The core data elements were summarized in the worksheet found in **APPENDIX C**. These included data components from four general categories: employment, population, households and housing units to be forecast for the geographies and time periods mentioned above. Parts of the worksheet were amended in the course of the project to better match the model input requirements of the SJTPO and their consultants.



In addition, several of the data elements were required to be provided for year-round as well as summer seasonal periods. This information is important due to the very distinct seasonal transportation patterns in much of the SJTPO Region, especially in Atlantic and Cape May counties.

## **2. Data Collection Component:**

The collection, sources and analysis of the data needed to be transparent to the SJTPO staff. Much of the baseline data is available from the New Jersey Department of Labor State Data Center found at: [http://lwd.dol.state.nj.us/labor/lpa/LMI\\_index.html](http://lwd.dol.state.nj.us/labor/lpa/LMI_index.html). This site has the data from Census 1990 to the current Census 2010 datasets as available. In addition, the results from the American Community Survey (data was used where Census 2010 was not yet available) are found on that website: [http://lwd.dol.state.nj.us/labor/lpa/census/acs/acs\\_index.html](http://lwd.dol.state.nj.us/labor/lpa/census/acs/acs_index.html).

Where more detailed reports were needed for income, data was found at the site of the Bureau of Economic Analysis: <http://www.bea.gov/national/index.htm#personal>. Finally, the wage and employment data is found at the site of the Bureau of Labor Statistics: <http://www.bls.gov/bls/naics.htm>.

In order to complete the seasonal components of the forecasts, information from the Economic Census 2007 was used. This is reported at the Bureau of the census website: <http://www.census.gov/econ/census07>. In addition, in order to estimate the number of visitors in the summer months the continuous volume traffic counts on a number of county roads were used to compare summer with winter volume. These counts also give weekday/weekend breakdowns. These counts are found at: [http://www.state.nj.us/transportation/refdata/roadway/traffic\\_counts/](http://www.state.nj.us/transportation/refdata/roadway/traffic_counts/).

## **3. Forecasting Component:**

The forecasting methodology is explained in some detail in following sections. However, the principle method used for this project was a two-stage process. First, an overall forecast of county-level population and employment was chosen from a set of third-party projections from credible vendors with long track records in this area. These vendors produce model-based forecasts which are constrained and compatible with state and regional forecasts. The services

used for his project included: Moody's Economics, Woods & Poole Economics, and the New Jersey Department of Labor.

In the second stage, the data elements required for this project were projected to be consistent with the overall employment and population levels from the first stage. Where other data elements were included with the third-party product, growth rates relative to the overall employment or population growth rates were used to further assure consistence. Otherwise, the historical growth rates were used by the *CRBR* to make projections. Where disaggregation to the municipal or lower levels was required, the trends in their historical shares of county-level growth were used.

#### **4. Reporting Component:**

In Chapter 2 of this report are comprehensive profiles of the SJTPO Region and each county highlighting many of the final core data elements. However, the complete, detailed data at the municipal and TAZ levels is reported in electronic files with the exception of the base case employment and population projections which are reported in **APPENDIX E**.

The results of the project are also reported in two presentation formats:

- A set of brochures highlighted the demographic trends in the SJTPO Region and each county. These five brochures of four pages each are found in **APPENDIX F**.
- A Powerpoint presentation which is delivered in an electronic file and on a template which can be adapted for any given audience using charts, tables, text and maps from this report and/or the electronic files. The delivered presentation is a general introduction into the purpose, results and use of the projections.

In addition, members of the *CRBR* team have presented the results in front of the Technical Advisory Committee (TAC) on several occasions. Input and comments from this group were proactively gathered through email and at meetings. All concerns were addressed with data and or explanations. Several revisions were made to address the concerns of TAC members. The dates of meetings and the progress reports distributed to the TAC are found in **APPENDIX B**.

## **5. Mapping Component:**

Deliverables to the SJTPO include a set of ArcGIS shapefiles that can accommodate the primary data elements. In addition, a set of shapefiles used to map TAZs and environmentally sensitive land were also developed. The profile in Chapter 2 as well as the brochures and Powerpoint presentation utilize maps with charts and graphs to illustrate the major trends developed in this project.

## **6. Scenario Building Component:**

The development of low-growth and high-growth scenarios for this project followed the guidelines found in the *FHWA Scenario Planning Guidebook* made available in September of 2010 by the U.S. Department of Transportation. It can be found at:

<http://www.fhwa.dot.gov/planning/scenplan/guidebook/>. The results of this component are reported in Chapter 3.

The process followed for this project included the following steps:

- Identification of stakeholders in the transportation system, both planners and users.
- Development of lead questions to be made available before the scenario planning session.
- Inviting potential participants and outlining their role and purpose in the process.
- Conducting the focus group exercise.
- Recording comments and ideas.
- Organizing the input for use in developing a set of scenario projections.

The materials used in this process and the list of attendees are found in **APPENDIX D** of this report.

## **7. Part B: Disaggregation:**

The original list of required data elements called for the disaggregation of many of the data elements into either seasonal components and/or greater levels of geographic disaggregation into TAZs and census tracts. However, in some instances the transportation models were able to perform the disaggregation internally or they needed the data in a different level of reporting

rather than in greater geographic detail. For instance, the employment data disaggregated by NAICS proved more useful than the four category decomposition originally requested.

However, in order to divide municipal-level data into TAZ-level data, each TAZ was defined as a % of the land area of the municipality in which it is located. This equivalency table can be used with any of the required data elements.

The seasonal decompositions were done using monthly information where possible to identify seasonal patterns. This was done for population and employment. In the case of population, monthly data is not available. However, household occupancy for seasons is reported and this was used to estimate summer populations.

In addition, the number of daily visitors is important for transportation planning purposes. These were also estimated using Economic Census data on campgrounds, motels/hotels, marinas and commuting employees. Finally, daily trips were used by comparing the winter continuous volume counts on roadways with those from the summer months. This methodology proved useful for the coastal counties of Atlantic and Cape May. However, after local review and some attempted modifications, the estimates for Salem and Cumberland counties were too high. This was caused by traffic counts that most likely reflected trips by those passing through the counties on the way to the shore. Further analysis involving surveys of visitors and/or more traffic pattern information would be necessary to remedy this problem. **As a result, the seasonal visitor counts for these two counties are reported but acknowledged to need further study.**

For employment, quarterly data at the municipal level by NAICS is available on a very limited basis and soon will not be reported by the Bureau of Labor Statistics. However, using shares by industry by municipality in the years reported, the county numbers which are and will continue to be reported monthly were used to estimate the municipal levels in all years. Unless otherwise specified, the annual population and employment levels are the 12-month averages as distinct from seasonal data.

## **Methodology**

The primary source of the forecasts, as stated above, is the compilation of three independent forecasts acquired from reputable, third-party entities. These included the New Jersey Department of Labor, Woods & Poole Economics, Inc. and Moody's Economy.com. All have been preparing forecasts at the county level for many years. The NJDOL forecast ended in 2028 and was extended using its trend growth rate.

Why are third party forecasts used for the basis of the county projections in this study? In reality, the economic patterns that are observed at the county-level are strongly influence by the performance of the state, regional and national economies. This is particularly true for primary and secondary industries that are not solely dependent on local spending. The models used at the macro-level constrain the county-level projections and prevent them from being unrealistic considering their economic ties to the external environment. In addition, these third-party vendors use industry-based models which allow areas dependent on growth industries to outperform those with stagnant or declining industries. This accounts for the differing growth rates between counties in the SJTPO region.

At the current time, there is no public institution in Southern New Jersey which has developed and maintained a model of the region. Such a model would allow for the development of projections based on local assumptions and scenarios. However, even these would need to be reconciled with baseline forecasts of the external economy.

These third-party forecasts were reviewed by the *CRBR* and compared to the latest available estimates to examine trends to date. Summaries of the population forecasts are given in **TABLE 1** below. As the table illustrates, there is a varying amount of disagreement from county to county in long-term trends. This is not surprising and offers a range for planning considerations. The forecast chosen as the baseline for this project is highlighted.

**TABLE 1**

<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>						
<b>CONCENSUS FORECASTS, POPULATION</b>						
<b>CRBR, 2011</b>						
<b>Population</b>						
	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>
<b>Atlantic County</b>						
WOODS & POOLE	225,431	252,980	275,531	300,924	327,499	354,474
MOODY'S ECONOMICS	225,431	253,038	273,240	293,041	311,994	340,281
NJDOL	225,431	253,038	274,549	291,680	313,150	341,542
<b>Cape May County</b>						
WOODS & POOLE	95,368	102,308	97,919	108,723	119,954	131,338
MOODY'S ECONOMICS	95,368	102,307	97,265	98,433	100,485	101,541
NJDOL	95,368	102,307	97,265	93,920	95,329	96,330
<b>Cumberland County</b>						
WOODS & POOLE	138,366	146,351	157,753	163,052	168,993	175,106
MOODY'S ECONOMICS	138,366	146,362	158,945	168,471	177,631	188,607
NJDOL	138,366	146,362	156,898	168,080	177,532	188,503
<b>Salem County</b>						
WOODS & POOLE	65,383	64,216	66,856	70,717	74,856	79,078
MOODY'S ECONOMICS	65,383	64,213	66,804	71,678	76,425	82,741
NJDOL	65,383	64,213	66,083	67,440	70,535	76,364

**Highlights of County Growth Patterns:**

The rationale for each of the county forecasts chosen for this project is summarized below:

**Atlantic County:**

Once again, the timing of this project leaves much uncertainty between the relatively high growth in the 1990 – 2006 period and the slow or negative growth for much of the SJTPO Region in the recessionary years that now persist. This is particularly problematic in Atlantic County where the fate of one industry is considered the primary variable in projecting long-term population. In this case the mid-growth forecast of Moody's was chosen, again with local input. While the casino industry may return to solid financial health, there is not an expectation that it will expand its

employment substantially to spur population growth to the upper projection of 354,474. The Moody's estimate was used with and adjustment of the start point to the Census 2010 level.

In its May 2011 Atlantic City Metro Report (Atlantic County is designated as the Atlantic City Metropolitan Statistical Area), Moody's Analytics stated that:

*Atlantic City's recovery will gradually pick up steam...and will accelerate in 2012 when the new Revel casino is expected to jump-start the gaming industry.....With few drivers outside of gaming, tourism, slow population growth, and an expensive cost structure, ATA's long-term expansion will trail the national average*

In Moody's index of living and business costs, the area was at 113% and 109% respectively of the national averages. The high costs cited included energy, the business tax burden, and unit labor costs.

#### **Cape May County:**

Of the four counties, it is interesting that the greatest variation is in the forecasts for Cape May County which had one of the lowest growth rates in the country in the 2000 – 2010 decade with an actual decline from 102,326 to 97,265. The high projection of 131,338 in 2040 from Woods & Poole implies a return of substantial growth. Using local input and past trends, the Moody's forecast was used with the expectation that the current decline would be reversed but growth would be minimal.

In its May 2011 Ocean City Metro Report (Cape May County is designated as the Ocean City Micropolitan Statistical Area), Moody's Analytics stated that:

*Location amid densely populated urban areas will serve as a long-term driver for tourism, but leisure/hospitality will muster a pace of growth that is below the national average. OCE will benefit from an influx of retirees, supporting growth in healthcare. However, low industrial diversity and high relative business costs will restrict growth. OCE will be a below-average performer over the long-run.*

In Moody's index of living and business costs, the area was at 111% and 102% respectively of the national averages. The high costs cited included energy and the business tax burden. Energy costs exceeded 150% of the national average in 2009.

**Cumberland County:**

For Cumberland County, the forecast needed to reflect the growth possibilities that began to manifest themselves in the 1990 – 2010 period, especially in the five years prior to the recession. With the Moody's and NJDOL projections being very similar and incorporating modest growth to reflect this potential, the Moody's projection was used in this case also. The relatively low cost of land and an improving transportation system, particularly the development of a light-rail system as is now being studied, make the two southern counties of Cumberland and Salem possible growth areas for the Philadelphia to Wilmington employment area, including the Route 295 corridor.

In its May 2011 Vineland Metro Report (Cumberland County is designated as the Vineland Metropolitan Statistical Area), Moody's Analytics stated that:

*The metro area's narrow industrial base leaves the economy vulnerable to major economic or financial shocks....VIN's above-average business costs, relatively low educational attainment, and lack of industrial diversity limits the area's ultimate growth potential. As a result, VIN will grow more slowly than the U.S. average over the long term.*

In Moody's index of living and business costs, the area was at 99% and 104% respectively of the national averages. While these are close to the national averages, in a relatively high-cost state like New Jersey, they present opportunities especially compared to larger urban areas with high land and labor costs. However, for some low value-added industries, the high business costs are expected to be detrimental as "outsourcing trends accelerate, eroding low-tech manufacturing payrolls."

**Salem County:**

The growth performance of lower Gloucester County in the last expansion and the availability of existing infrastructure in several of the municipalities along the Delaware River and in Salem City are the main reasons for the expectation of growth in Salem County that exceeds the current trend. This expectation is found in all three projections with the high of 82,741 in the Moody's projections. Given the past trends, the lower projections were considered more reasonable. In addition, local input tended to be more conservative. The Woods & Poole projection was used to



acknowledge the potential for growth in the regional economy as lower 295 is developed and growth in Gloucester County continues to put pressure on Salem County.

While the county is not a part of a Metropolitan Statistical Area, the expectation is that growth patterns in the Camden MSA (of which Gloucester County is a part) will influence its economic and demographic future. In its May 2011 Camden Metro Report, Moody's Analytics stated that:

*Over the long run, CAM will attract new business from Philadelphia, but its concentration of high-value-added industries will remain smaller than the rest of New Jersey's. Therefore, income growth will trail the state's, and job growth will be merely average.*

In Moody's index of living and business costs, the area was at 109% and 91% respectively of the national averages. The low costs cited included labor and office/industrial space while energy costs and taxes remain a drag on business attraction.

The development of employment projections is based on the trends in the population data and the ratio of employment to population in the latest data. The overall employment projections are shown in **TABLE 2** below:

**TABLE 2**

SJTPO 2040 DEMOGRAPHIC FORECAST							
GROWTH TREND SUMMARY							
CRBR, 2011							
			1990-2000		2000-2010		2010-2040
	1990	2000	Growth %	2010	Growth %	2040	Avg. 10-Yr. Growth %
EMPLOYMENT PROJECTIONS							
<b>SJTPO REGION</b>	<b>258,123</b>	<b>270,754</b>	<b>4.9%</b>	<b>259,782</b>	<b>-4.1%</b>	<b>315,141</b>	<b>7.1%</b>
<b>Atlantic County</b>	135,692	144,875	<b>6.8%</b>	136,800	<b>-5.6%</b>	163,285	<b>6.5%</b>
<b>Cape May County</b>	38,833	42,733	<b>10.0%</b>	41,500	<b>-2.9%</b>	50,750	<b>7.4%</b>
<b>Cumberland County</b>	59,600	60,442	<b>1.4%</b>	59,330	<b>-1.8%</b>	71,055	<b>6.6%</b>
<b>Salem County</b>	23,998	22,704	<b>-5.4%</b>	22,152	<b>-2.4%</b>	30,052	<b>11.9%</b>

In general, the SJTPO Region is projected to have a 6.5% average 10-year growth in population from 2010 – 2040 and a corresponding 7.1% growth in employment. This reflects the region's out-migration of employees to the more densely populated areas in the Philadelphia area. For Atlantic, Cape May and Cumberland counties, the employment projections from Moody's were

used to match the population projection used. In the case of Cape May, this was adjusted downward somewhat due to the 2010 starting points not matching. The actual 2010 levels were used for this level.

The exception to matching population and employment projections was Salem County where the Woods & Poole population projection had an employment projection of 41,000 compared to the current level of just over 22,000. Given the fact that Moody's also expected employment growth to exceed the historical trends, this lower forecast was used. The employment level of 30,052 in 2040 is an expected increase of 7,900 jobs over a thirty-year period. While local input was mixed between continued very slow growth and some modest growth, the forecast chosen both complements the non-trend levels of population growth and acknowledges the potential for growth given the overall patterns on the western part of the region.

Finally, the municipal level forecasts were based primarily on past trends and their shares of county growth. Local information about particular municipalities, especially potential build-outs and restrictions, was also incorporated. Once again, the difficulty of separating the patterns of the 1990 – 2005 period from the recessionary trends of 2006 -2010 made this task more difficult. Some municipalities that historically showed very slow growth accelerated in the last few years of the expansion. Whether this pattern will resume when modest growth returns to the regional economy is the dilemma.

The next chapter gives a brief summary of each of the more detailed data elements and how they were projected. However, it should be stated that performing a four-county forecast at the municipal level based on available economic and demographic data alone yields estimates that are inherently imprecise. The ability to accommodate the growth that is projected and the relative costs between municipalities change over time. To better project the data elements required for transportation modeling, it is recommended that more information is added to the process. This information would include physical, zoning and environmental factors.

This analysis is more involved and more expensive. However, the trade-off in terms of what it would add to the planning process needs to be considered. While these projections were

developed based on population growth and the ratio of employment and population shares from historical data, this analysis does not allow for new nodes of economic activity emerging in the forecast horizon. This is both a strength and weakness. The likelihood that some will emerge is real. The ability to predict where and for what purpose is difficult.

# ***SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION***

## **2040 DEMOGRAPHIC FORECAST**

### **II. REGIONAL PROFILE**

#### **Introduction**

This section is intended to give a profile of the SJTPO Region as well as each county. It is also meant to introduce the reader to some of the many data elements produced in the project. The county sections report some of the municipal-level data which is also available in **APPENDIX E**. While not all data elements are reported here, the complete datasets are available from the SJTPO. In addition, a brochure for the region as well as each county was produced and can be found in **APPENDIX F**.

#### **SJTPO Regional Projections**

The overall growth of the SJTPO Region is reported below in **TABLE 3**. The regional **population** growth is projected to be 6.5% per decade for the 2010 – 2040 period. Compared to the 8.2% growth experienced in the 1990 – 2000 decade, this represents a slowing of the trend experienced previous to the 2007 – 2009 recession. The 2000 – 2010 decade slowed to 5.2%, influenced heavily by the stagnation of the post-2006 recessionary years.

At the county level, this represents a slower growth trend for Atlantic County than the last twenty years as casino development and retirement homes moderate their growth patterns. Cape May County is expected to reverse its declining population very slowly with a 2.0% 10-year average. Cumberland County continues to grow at the trend of the past twenty years. However, it should be noted that growth in the middle part of the last decade was uncharacteristically high, reinforcing the projection for continued growth. Finally, Salem County is expected to continue to accelerate its growth to 6.6% per decade. The potential for the redevelopment of Pennsville and Salem City, the possibility of expanded employment due to new nuclear power plants, and

the access provided by both Rt. 295 and the NJ Turnpike put the county in the path of development in the next two or three growth cycles to occur over the forecast period.

**TABLE 3**

SJTPO 2040 DEMOGRAPHIC FORECAST							
GROWTH TREND SUMMARY							
CRBR, 2011							
	1990-2000			2000-2010		2010-2040	
	1990	2000	Growth %	2010	Growth %	2040	Avg. 10-Yr. Growth %
<u>EMPLOYMENT PROJECTIONS</u>							
<b>SJTPO REGION</b>	<b>258,123</b>	<b>270,754</b>	<b>4.9%</b>	<b>259,782</b>	<b>-4.1%</b>	<b>315,141</b>	<b>7.1%</b>
Atlantic County	135,692	144,875	6.8%	136,800	-5.6%	163,285	6.5%
Cape May County	38,833	42,733	10.0%	41,500	-2.9%	50,750	7.4%
Cumberland County	59,600	60,442	1.4%	59,330	-1.8%	71,055	6.6%
Salem County	23,998	22,704	-5.4%	22,152	-2.4%	30,052	11.9%
<u>POPULATION PROJECTIONS</u>							
<b>SJTPO REGION</b>	<b>522,763</b>	<b>565,601</b>	<b>8.2%</b>	<b>594,795</b>	<b>5.2%</b>	<b>710,254</b>	<b>6.5%</b>
Atlantic County	224,327	252,552	12.6%	274,549	8.7%	341,915	8.2%
Cape May County	95,089	102,326	7.6%	97,265	-4.9%	103,083	2.0%
Cumberland County	138,053	146,438	6.1%	156,898	7.1%	186,178	6.2%
Salem County	65,294	64,285	-1.5%	66,083	2.8%	79,078	6.6%

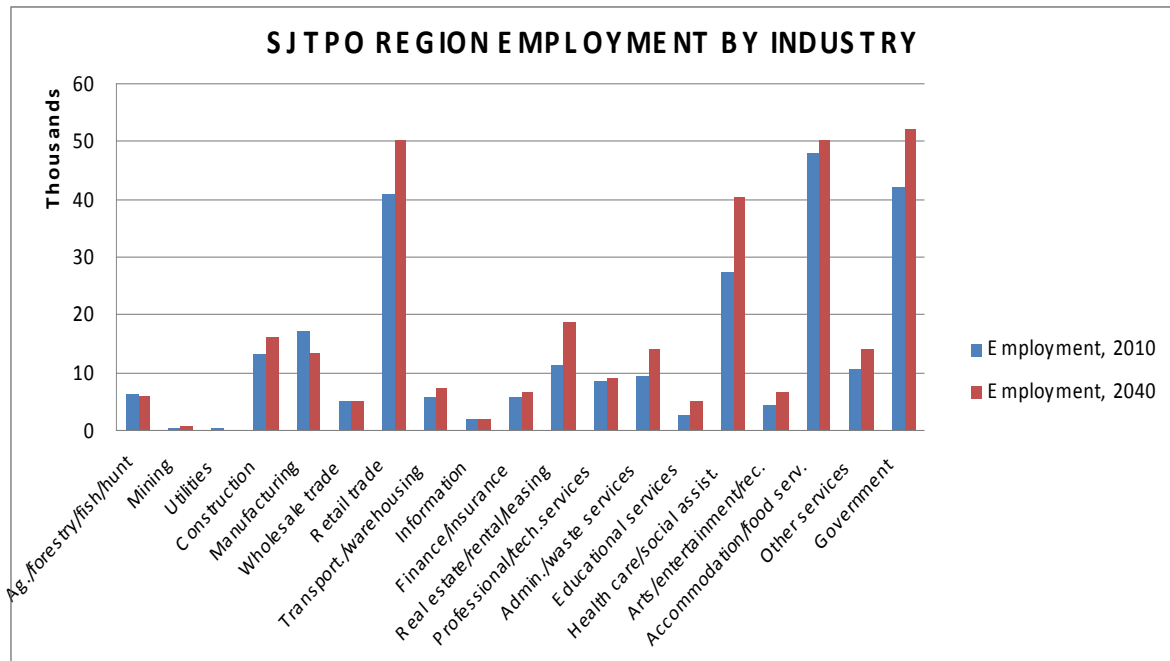
The **employment** projections show an acceleration of trends as the region continues to present inexpensive land and an improving infrastructure to potential employees. Having access to major highways as well as rail and port facilities, the region's employment is expected to grow by 7.1%. While Cape May at 7.4% per decade and Salem at 11.9% have the highest growth rates, they also have fairly small bases to grow from. The majority of jobs are still expected to come from Atlantic and Cumberland counties.

The composition of the employment is illustrated in the chart on the next **CHART 1** below. This chart shows the growth by North American Industry Classification System (NAICS). The overall 21% growth in jobs from 2010 – 2040 will be accomplished by differential growth by sector. The current structure of employment shows dominance by the four sectors: retail trade at 15.6%; healthcare services at 10.4%; accommodations and food services at 18.2%; and, government at all levels at 16.0%. The large increases in share of jobs can be seen in real estate and healthcare.

However, the fastest growth in employment will be dominated by administrative services (49%), educational services (87%), real state (67%), healthcare (47%) and arts and entertainment (41%). For the definitions of these classifications, see:

[http://www.census.gov/eos/www/naics/2007NAICS/2007\\_Definition\\_File.pdf](http://www.census.gov/eos/www/naics/2007NAICS/2007_Definition_File.pdf)

**CHART 1**



One set of new data elements required for this study was **seasonal variations** in population, households and employment. While there is no generally accepted method for these projections, they were produced using methodologies employed by Cape May County and the New Jersey Department of Labor over a number of years. Cape May has the largest seasonal variation in economic activity in the region (and state) while the NJDOL is required to estimate summer residents in shore communities for the purpose of indexing crime statistics.

The categories of seasonal population reported in **TABLE 4** indicate the different seasonal trends that are of interest to transportation planners. In addition, the variation in weekday and weekend demands on the transportation system is also of interest and estimated. The year-round household count is reported in the Census. This differs from the number of housing units in that

households are occupied units. The difference between the two leads to the vacancy rate. Finally, the total population differs from the household population by the number of residents reported in group homes. This difference is significant in a number of Cumberland County municipalities that host corrections facilities.

For this study, the summer households were estimated using reductions in the vacancy rate from the average to 75% occupancy of vacant units on summer weekdays and 93% (the state average) on weekends. The seasonal visitor counts included the addition of persons at campgrounds, marinas and motels/hotels, as well as in-commuting workers and day-trippers. While the number of campgrounds, marinas and motels are reported in the Economic Census every five years, their capacity is not. This was estimated using some averages from Cape May County which does surveys of these locations. The average seasonal employment variations are available for every year. Finally, the number of day-trippers was estimated from the continuous volume traffic counts available from the NJDOT. These give monthly and weekday/weekend counts, variations can be computed from this information.

**TABLE 4**

SJTPO 2040 DEMOGRAPHIC FORECAST SEASONAL POPULATION SUMMARY CRBR, 2011							
Area	Year	Total Population	Total Household Population	Summer Weekday Household Population	Summer Weekend Household Population	Summer Weekday Visitor + Household Populations	Summer Weekend Visitor + Household Populations
SJTPO Region	2010	594,795	570,557	965,201	1,011,674	1,287,480	1,648,293
	2040	710,254	677,144	1,145,636	1,196,366	1,418,291	1,845,678
Atlantic County	2010	274,549	267,901	446,579	460,184	570,041	767,337
	2040	341,915	332,777	567,936	585,071	658,363	914,979
Cape May County	2010	97,265	94,593	310,559	343,427	509,376	672,893
	2040	103,083	100,741	334,076	367,671	516,303	687,074
Cumberland County	2010	156,898	143,108	143,108	143,108	143,108	143,108
	2040	186,178	186,178	165,758	165,758	165,758	165,758
Salem County	2010	66,083	64,955	69,052	69,897	80,719	90,935
	2040	79,078	77,867	82,266	83,172	96,029	109,744

The table shows the range of variations in seasonal populations across the counties in the SJTPO Region. Cape May experiences the greatest increase in activity with its year-round population of 97,265 increasing to over 650,000 on summer weekends.

Seasonal variation in employment is estimated using monthly data that is reported on a regular basis. Year-round employment is that level reported in January while summer employment is from July levels. The estimation of summer weekend employments (not shown) was performed by removing employment from NAICS categories that would be unlikely to be operating on a weekend. Two examples are educational services and manufacturing.

The seasonal employments are reported in **TABLE 5**. In all four counties, the summer employment is estimated to exceed the year-round level. This reflects the large role that recreation and accommodations employment plays in the region.

**TABLE 5**

SJTPO 2040 DEMOGRAPHIC FORECAST											
SEASONAL EMPLOYMENT BY INDUSTRY GROUP											
CRBR , 2011											
							Summer				
	<u>2010</u>	<u>Mfg</u>	<u>Retail</u>	<u>Office</u>	<u>Other</u>		<u>2010</u>	<u>Mfg</u>	<u>Retail</u>	<u>Office</u>	<u>Other</u>
SJTPO REGION	259,782	17,183	41,246	16,811	184,542		275,022	17,494	44,486	17,218	198,999
Atlantic County	136,800	3,956	19,672	9,884	103,288		140,666	3,956	20,053	10,161	108,495
Cape May County	41,500	1,046	8,343	2,599	29,512		54,406	1,214	11,377	2,729	35,607
Cumberland County	59,330	9,019	10,092	3,193	37,026		58,214	9,125	9,959	3,193	39,459
Salem County	22,152	3,162	3,139	1,135	14,716		21,736	3,199	3,098	1,135	15,438
							Summer				
	<u>2040</u>	<u>Mfg</u>	<u>Retail</u>	<u>Office</u>	<u>Other</u>		<u>2040</u>	<u>Mfg</u>	<u>Retail</u>	<u>Office</u>	<u>Other</u>
SJTPO REGION	315,141	13,671	50,487	20,831	230,152		335,095	13,892	54,209	21,385	247,582
Atlantic County	163,285	3,082	27,168	11,498	121,537		167,899	3,082	27,694	11,820	127,794
Cape May County	50,750	932	9,297	4,621	35,900		66,654	1,040	12,678	4,852	42,990
Cumberland County	71,055	6,931	10,665	3,527	49,932		71,055	7,013	10,525	3,527	52,948
Salem County	30,052	2,726	3,357	1,185	22,784		29,487	2,758	3,313	1,185	23,850

The data elements in the household section are summarized in **TABLE 6**. Some of these elements have not yet been extended in the forecast due to the fact that the Census 2010 results in these areas have not been released as of the date of this report. They will be projected when available. However, for illustration and explanatory purposes, the data available from the



American Community Survey, 2007 – 2009 (ACS) is shown. This survey is replacing the Census long-form.

**TABLE 6**

SJTPO 2040 DEMOGRAPHIC FORECAST						
HOUSEHOLD INFORMATION						
CRBR, 2011						
2010 Geography	Total Households	Average Household Size	Median HH Income*	Low-Income HHS: *	Zero Vehicle HHS*	Zero Vehicle HH Population*
<b>SJTPO Region</b>	220,880	2.58		27,203	26,261	70,668
<b>Atlantic County</b>	102,847	2.60	\$33,716	11,009	14,213	37,456
<b>Cape May County</b>	40,812	2.32	\$30,435	4,626	3,969	9,970
<b>Cumberland County</b>	51,931	2.76	\$29,985	8,027	5,775	16,920
<b>Salem County</b>	25,290	2.57	\$33,155	3,541	2,304	6,322
* From 2009 American Community Survey. Census 2010 data due to be released in fall of 2011.						

The definitions of these categories that were used are from the Environmental Justice guidelines. The median household income is reported regularly but tends to lag a number of years at the county-level. Low-income households are those below the federal poverty level. The four counties in the SJTPO Region have some of the lowest income and highest poverty rates of all New Jersey counties.

Zero vehicle households are reported in the ACS as those having no vehicles, being more common in urban areas. In addition, but not shown here, data for Limited English Proficiency households is included in the project's data elements. The numbers reported, and those to be projected when the Census 2010 results are available, are the households which answer the question on English proficiency with either "none at all" or "very limited". In 2000, this population was 19,375 in the 2000 Census for the region.

Finally, the data elements in the **housing units** section are summarized in **TABLE 7**. The Census regularly reports all of these data elements at the municipal level. As the table reports, the highest vacancy rate is in Cape May County which on the average has only 41% of its units occupied year-round. There is very little vacancy for any reason in two western counties.

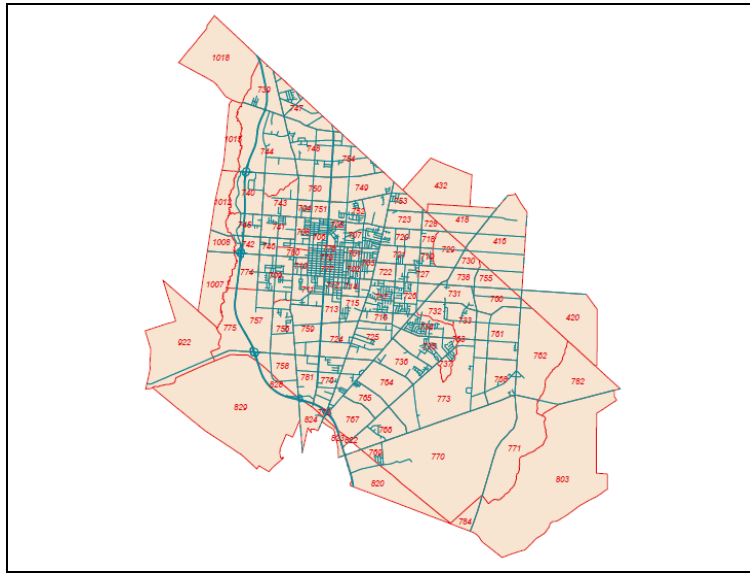
However, in all four counties, the housing market is expected to become less seasonal as second-home owners move to permanent retirement and many establish residency in the region.

**TABLE 7**

SJTPO 2040 DEMOGRAPHIC FORECAST						
HOUSING UNITS INFORMATION						
CRBR, 2011						
Area	Year	Total Population	Total Housing Units	Total Occupied Housing Units	Total Vacant Housing Units	% Vacant
<b>SJTPO Region</b>	<b>2010</b>	594,795	308,207	220,880	87,327	28.3%
	<b>2040</b>	710,254	370,212	274,322	95,890	25.9%
	<b>% Growth</b>	19.4%	20.1%	24.2%	9.8%	-8.6%
<b>Atlantic County</b>	<b>2010</b>	274,549	126,647	102,847	23,800	18.8%
	<b>2040</b>	341,915	160,990	131,015	29,975	18.6%
	<b>% Growth</b>	24.5%	27.1%	27.4%	25.9%	-0.9%
<b>Cape May County</b>	<b>2010</b>	97,265	98,309	40,812	57,497	58.5%
	<b>2040</b>	103,083	104,983	46,215	58,768	56.0%
	<b>% Growth</b>	6.0%	6.8%	13.2%	2.2%	-4.3%
<b>Cumberland County</b>	<b>2010</b>	156,898	55,834	51,931	3,903	7.0%
	<b>2040</b>	186,178	69,381	64,798	4,583	6.6%
	<b>% Growth</b>	18.7%	24.3%	24.6%	20.6%	-3.0%
<b>Salem County</b>	<b>2010</b>	66,083	27,417	25,290	2,127	7.8%
	<b>2040</b>	79,078	34,836	32,395	2,440	7.0%
	<b>% Growth</b>	19.7%	27.1%	28.1%	14.7%	-9.7%

To complete the profile of the SJTPO Regions, two maps are included in this profile to illustrate some of the issues addressed in the project. The first is **MAP 1** which shows the boundaries of Traffic Analysis Zones (TAZs) in Vineland. These boundaries were mapped for every municipality. The TAZS are each confined to one municipality while each municipality may contain many TAZs. These are used at the smallest level of transportation planning.

### MAP 1: Vineland Traffic Analysis Zones



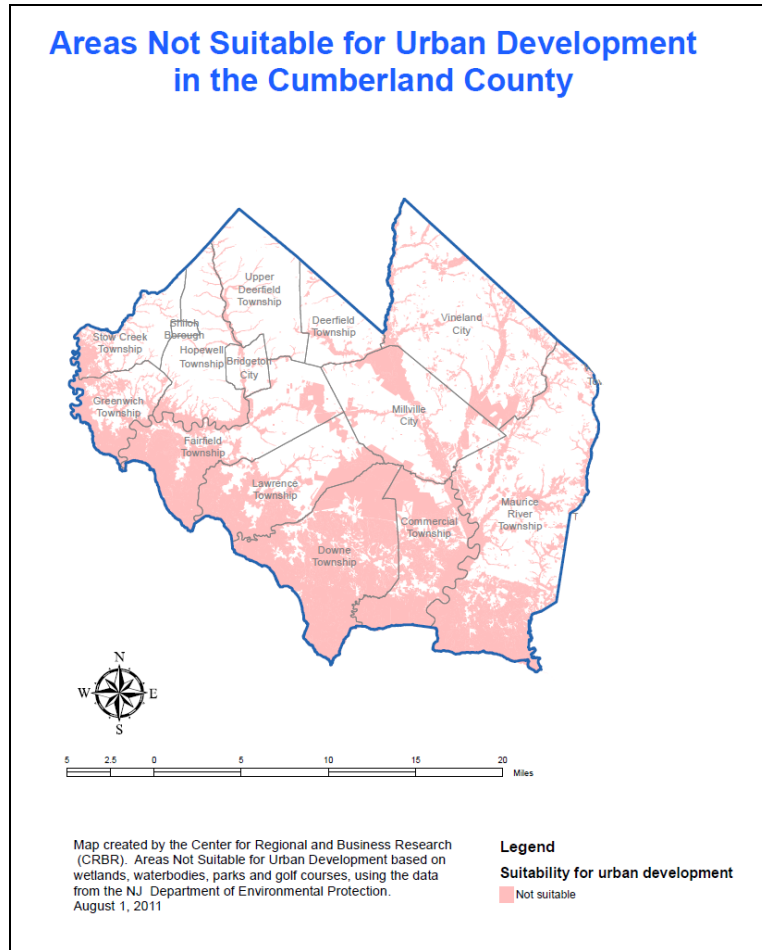
One of the categories of major constraints on growth as well as one of the prime determinants of where growth will be located over the next thirty years is environmentally sensitive land. **MAP 2** shows how these influence growth in Vineland. The defined land is that in parks, wetlands, golf courses and cemeteries:

This profile summarizes the major trends in the SJTPO Region. In the next chapter, some of the more disaggregated data is reported for each county. Summaries of this data are also found in the individual brochures found in **APPENDIX F**.

#### **Atlantic County Projections**

Of the four counties in the SJTPO region, Atlantic County has the potential for adding the most jobs and the most people. With a part of the county designated for high growth by the Pinelands Commission and several municipalities already have sufficient infrastructure for high growth, most notably Atlantic City, Pleasantville and Hammonton, the capacity for growth already exists to some extent.

## MAP 2



The following illustrations highlight the overall population and employment trends for Atlantic County. The municipal-level data is shown to highlight the areas of growth in population and employment. As the county's transportation network is planned, the demands of high growth areas will need to be met.

**TABLE 8**

SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL POPULATION PROJECTIONS								
CRBR, 2011								
				Growth %		Growth %		Growth %
	1990	2000	1990-2000	2010	2000-2010	2040	2010-2040	
<b>Atlantic County</b>	224,327	252,552	13%	274,549	9%	341,915	25%	
Absecon city	7,298	7,638	5%	8,411	10%	9,910	18%	
Atlantic City city	37,986	40,517	7%	39,558	-2%	41,153	4%	
Brigantine city	11,354	12,594	11%	9,450	-25%	9,085	-4%	
Buena borough	4,441	3,873	-13%	4,603	19%	6,204	35%	
Buena Vista township	7,655	7,436	-3%	7,570	2%	7,800	3%	
Corbin City city	412	468	14%	492	5%	535	9%	
Egg Harbor township	24,544	30,726	25%	43,323	41%	66,491	53%	
Egg Harbor City city	4,583	4,545	-1%	4,243	-7%	4,351	3%	
Estell Manor city	1,404	1,585	13%	1,735	9%	2,023	17%	
Folsom borough	2,181	1,972	-10%	1,885	-4%	1,948	3%	
Galloway township	23,330	31,209	34%	37,349	20%	50,968	36%	
Hamilton township	16,012	20,499	28%	26,503	29%	41,011	55%	
Hammonton town	12,208	12,604	3%	14,791	17%	19,490	32%	
Linwood city	6,866	7,172	4%	7,092	-1%	7,409	4%	
Longport borough	1,224	1,054	-14%	895	-15%	891	0%	
Margate City city	8,431	8,193	-3%	6,354	-22%	6,164	-3%	
Mullica township	5,896	5,912	0%	6,147	4%	6,535	6%	
Northfield city	7,305	7,725	6%	8,624	12%	10,406	21%	
Pleasantville city	16,027	19,012	19%	20,249	7%	22,525	11%	
Port Republic city	992	1,037	5%	1,115	8%	1,261	13%	
Somers Point city	11,216	11,614	4%	10,795	-7%	11,054	2%	
Ventnor City city	11,005	12,910	17%	10,650	-18%	10,516	-1%	
Weymouth township	1,957	2,257	15%	2,715	20%	3,740	38%	

The population of the county is projected to grow by 25% over the thirty-year forecast period. This exceeds the SJTPO Region's expected 19.4% increase. The three high-growth Pinelands townships of Egg Harbor, Galloway and Hamilton will continue to lead the growth with rates exceeding 35%. The shore towns will continue to exhibit slow growth with Ventnor and Margate losing population.

In term of employment, growth will be moderate at 19% compared to the SJTPO Region's 21% increase. At the municipal level, several of the towns in the western part of the county are expected to experience relatively higher growth.

Finally, the mix of industries is not expected to change drastically. Healthcare and retail are expected to gain share in the mix while the largest increases will be in educational services (63%), healthcare (46%) and real estate (41%).

TABLE 9

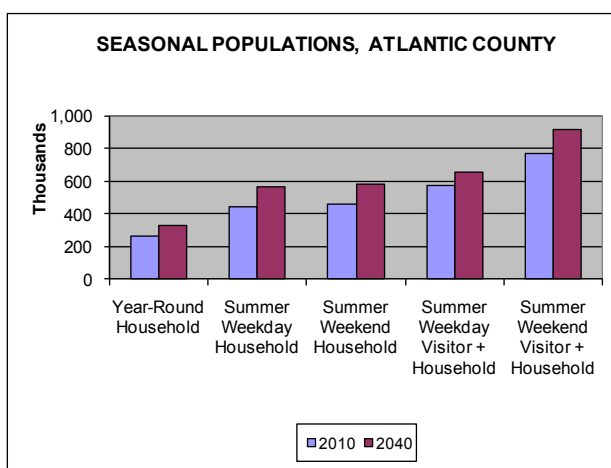
SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL EMPLOYMENT PROJECTIONS								
CRBR, 2011								
			Growth %		Growth %		Growth %	
	1990	2000	1990-2000	2010 (est.)	2000-2010	2040	2010-2040	
<b>Atlantic County</b>	135,692	144,875	7%	136,800	-6%	163,285	19%	
Absecon city	2,913	3,555	22%	3,670	3%	4,626	26%	
Atlantic City city	73,855	61,004	-17%	56,627	-8%	65,353	15%	
Brigantine city	1,166	1,925	65%	1,592	-17%	1,816	14%	
Buena borough	1,523	1,486	-2%	1,260	-15%	1,438	14%	
Buena Vista township	1,225	1,223	0%	1,350	10%	1,702	26%	
Corbin City city	34	542	1480%	150	-5%	150	0%	
Egg Harbor City city	1,352	3,751	177%	3,125	-17%	3,566	14%	
Egg Harbor township	7,756	15,409	99%	14,404	-7%	17,499	21%	
Estell Manor city	41	266	549%	239	-10%	272	14%	
Folsom borough	728	906	25%	872	-4%	1,100	26%	
Galloway township	5,793	7,672	32%	8,901	16%	11,221	26%	
Hamilton township	8,378	11,379	36%	10,554	-7%	12,822	21%	
Hammoncton town	8,144	8,975	10%	8,838	-2%	11,142	26%	
Linwood city	2,723	2,919	7%	2,803	-4%	3,199	14%	
Longport borough	173	183	6%	160	-13%	182	14%	
Margate City city	1,361	1,691	24%	1,680	-1%	2,118	26%	
Mullica township	457	642	40%	615	-4%	702	14%	
Northfield city	3,494	5,161	48%	4,077	-21%	4,652	14%	
Pleasantville city	7,755	7,618	-2%	7,720	1%	9,732	26%	
Port Republic city	86	90	5%	86	-4%	99	14%	
Somers Point city	5,090	6,360	25%	6,137	-4%	7,699	25%	
Ventnor City city	1,570	1,891	20%	1,733	-8%	1,978	14%	
Weymouth township	74	228	207%	180	-21%	205	14%	

TABLE 10

SJTPO 2040 DEMOGRAPHIC FORECAST				
EMPLOYMENT BY NAICS				
CRBR, 2011				
<b>Atlantic County</b>				
	<b>2010</b>	<b>% of TOTAL</b>	<b>2040</b>	<b>% of TOTAL</b>
<b>TOTAL</b>	<b>137,409</b>		<b>165,177</b>	
Ag./forestry/fish/hunt	1,629	1.2%	1,906	1.2%
Mining	0	0.0%	0	0.0%
Utilities	491	0.4%	294	0.2%
Construction	7,098	5.2%	9,740	5.9%
Manufacturing	3,956	2.9%	3,082	1.9%
Wholesale trade	3,086	2.2%	2,723	1.6%
Retail trade	19,672	14.3%	27,168	16.4%
Transport./warehousing	2,864	2.1%	2,839	1.7%
Information	1,104	0.8%	1,121	0.7%
Finance/insurance	3,182	2.3%	3,563	2.2%
Real estate/rental/leasing	5,715	4.2%	8,069	4.9%
Professional/tech.services	5,534	4.0%	5,450	3.3%
Admin./waste services	4,868	3.5%	6,319	3.8%
Educational services	1,646	1.2%	2,684	1.6%
Health care/social assist.	13,509	9.8%	19,676	11.9%
Arts/entertainment/rec.	2,686	2.0%	3,795	2.3%
Accommodation/food serv.	38,755	28.2%	39,038	23.6%
Other services	5,654	4.1%	7,641	4.6%
Government	15,596	11.4%	20,070	12.2%

Finally, **CHART 2** compares seasonal population estimates as explained in Chapter 1. Atlantic County will continue to exhibit a good deal of seasonality over the forecast period as shore towns and second homes remain a part of the growth pattern. While hotels and motels are used to determine visitor estimates, the casinos-hotel rooms were not used in this study. Because traffic counts are used and stays in Atlantic City are so short on average (less than two days), much double-counting will result. However, it is recognized that the present method is conservative and that the number of visitors is understated. However, given the data available, it is difficult to determine by what extent this influences the overall estimate of total visitors to the county.

**CHART 2**



### **Cape May County Projections**

Judging from the forecasts provided by the three forecasting services used in this study, future population and employment growth in Cape May County has the greatest amount of uncertainty. The accelerated rate of decline in the 2000 – 2010 period raises questions about the future demographics of the population and whether or not employment will grow enough to attract younger residents.

The following illustrations highlight the overall population and employment trends for Cape May County. The municipal-level data is shown to highlight the areas of growth in population and employment. As the county's transportation network is planned, the demands of high growth areas will need to be met.

The population of the county is projected to grow by only 6% over the thirty-year forecast period. This is substantially less than the SJTPO Region's expected 19.4% increase. Most of the growth

is expected to occur in Middle and Upper townships. The barrier island communities will continue to experience negative growth, a consequence of high property values with West Wildwood being the exception. The lack of growth in population in many of the county's communities has had a large impact on the delivery of educational services.

**TABLE 11**

SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL POPULATION PROJECTIONS								
CRBR, 2011								
				Growth %		Growth %		Growth %
	1990	2000	1990-2000	2010	2000-2010	2040	2010-2040	
<b>Cape May County</b>	95,089	102,326	8%	97,265	-5%	103,083	6%	
Avalon borough	1,809	2,143	18%	1,334	-38%	1,233	-8%	
Cape May city	4,668	4,034	-14%	3,607	-11%	3,584	-1%	
Cape May Point borough	248	241	-3%	291	21%	351	21%	
Dennis township	5,574	6,492	16%	6,467	0%	6,594	2%	
Lower township	20,820	22,945	10%	22,866	0%	23,317	2%	
Middle township	14,771	16,405	11%	18,911	15%	23,419	24%	
North Wildwood city	5,017	4,935	-2%	4,041	-18%	3,937	-3%	
Ocean City city	15,512	15,378	-1%	11,701	-24%	11,228	-4%	
Sea Isle City city	2,692	2,835	5%	2,114	-25%	2,020	-4%	
Stone Harbor borough	1,025	1,128	10%	866	-23%	833	-4%	
Upper township	10,681	12,115	13%	12,373	2%	13,732	11%	
West Cape May borough	1,026	1,095	7%	1,024	-6%	1,028	0%	
West Wildwood borough	453	448	-1%	603	35%	773	28%	
Wildwood city	4,484	5,436	21%	5,325	-2%	5,407	2%	
Wildwood Crest borough	3,631	3,980	10%	3,270	-18%	3,189	-2%	
Woodbine borough	2,678	2,716	1%	2,472	-9%	2,466	0%	

In term of employment, growth will be moderate at 22% compared to the SJTPO Region's 21% increase. This is based on a fairly low year-round level which increases substantially in the summer season. Cape May City, Middle Township and Woodbine Borough exhibit the highest expected employment growth rates.

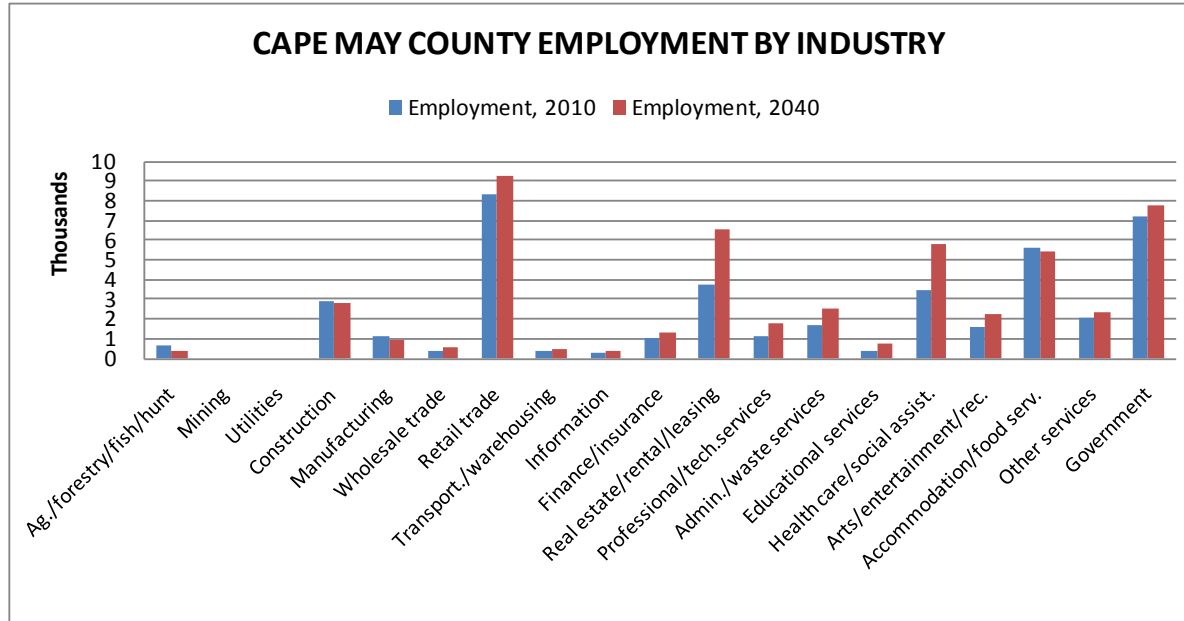
Finally, the mix of industries is not expected to change drastically. Healthcare and real estate are expected to gain share in the mix as well as exhibit the largest increases in growth of real estate (75%) and healthcare (67%).



**TABLE 12**

SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL EMPLOYMENT PROJECTIONS								
CRBR, 2011								
				Growth %		Growth %		Growth %
	1990	2000	1990-2000	2010 (est.)	2000-2010	2040	2010-2040	
<b>Cape May County</b>	38,833	42,733	10%	41,500	-3%	50,750	22%	
Avalon borough	1,482	1,371	-7%	1,333	-3%	1,403	5%	
Cape May city	4,383	4,905	12%	5,115	4%	7,217	41%	
Cape May Point borough	114	230	102%	163	-29%	172	5%	
Dennis township	1,307	2,085	60%	1,884	-10%	1,983	5%	
Lower township	2,716	3,266	20%	3,012	-8%	3,516	17%	
Middle township	8,797	10,602	21%	10,741	1%	15,155	41%	
North Wildwood city	1,854	1,612	-13%	1,307	-19%	1,376	5%	
Ocean City city	5,346	6,090	14%	5,717	-6%	6,018	5%	
Sea Isle City city	1,115	1,304	17%	1,190	-9%	1,253	5%	
Stone Harbor borough	1,180	1,074	-9%	924	-14%	973	5%	
Upper township	2,677	3,656	37%	2,970	-19%	3,467	17%	
West Cape May borough	123	298	141%	163	-45%	172	5%	
West Wildwood borough	8	48	495%	56	17%	79	41%	
Wildwood city	4,660	3,844	-18%	3,589	-7%	3,778	5%	
Wildwood Crest borough	2,473	1,737	-30%	1,361	-22%	1,432	5%	
Woodbine borough	599	611	2%	1,974	223%	2,785	41%	

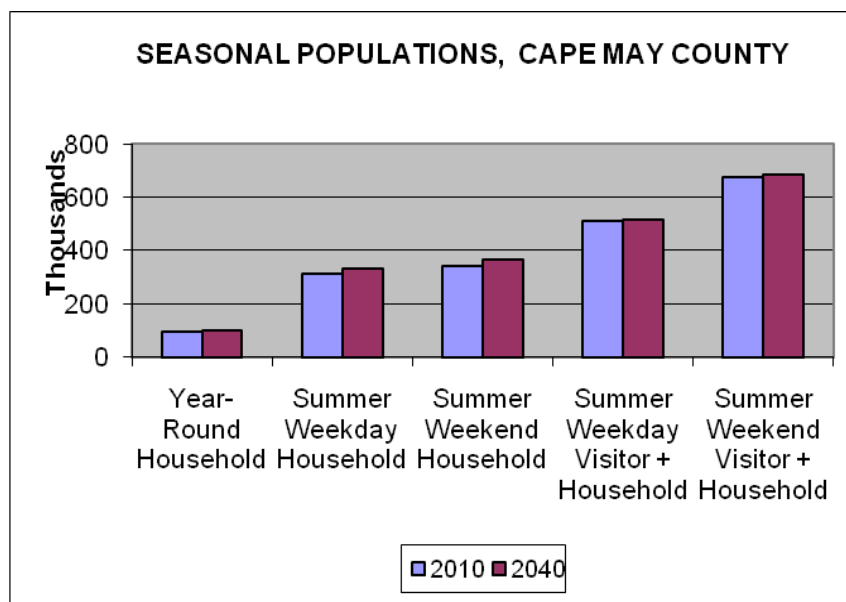
**CHART 3**



Finally, **CHART 4** compares seasonal population estimates as explained in Chapter 1. Cape May County will continue to exhibit a great deal of seasonality over the forecast period as shore

towns and second homes remain a part of the growth pattern. By the end of the forecast period, the summer weekend population is expected to be seven times the year-round level.

**CHART 4**



### **Cumberland County Projections**

The most recent population counts for Cumberland County indicate that growth has continued despite the recession of the past five years with population increasing by 7% in the past decade. However, the inability to expand its employment base has led to continued downward pressure on incomes in the county. In the past decade, employment growth has fallen by -2%.

The population of the county is projected to grow by 19% over the thirty-year forecast period. This matches the SJTPO Region's expected 19.4% increase. This growth is expected to be uneven with the urban areas of Bridgeton (29%) and Vineland (20%) providing the greatest number of new residents while Laurence Township (45%) continues its growth pattern on a much smaller base.

In term of employment, growth will be moderate at 20% compared to the SJTPO Region's 21% increase. At the municipal level, the growth will be fairly evenly distributed. The county will

need to work proactively to attract higher-wage jobs to alleviate the low-income levels that have hampered growth.

Finally, the mix of industries is not expected to change drastically. Healthcare, educational services and real estate are expected to gain share in the mix while the largest increases will be in educational services (147%), real estate (98%), administrative services (64%), and accommodations and food services (76%).

**TABLE 13**

<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>							
<b>MUNICIPAL POPULATION PROJECTIONS</b>							
<b>CRBR, 2011</b>							
			<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
	<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Cumberland County</b>	138,053	146,438	<b>6%</b>	156,898	<b>7%</b>	186,178	<b>19%</b>
Bridgeton city	18,942	22,771	<b>20%</b>	25,349	<b>11%</b>	32,810	<b>29%</b>
Commercial township	5,026	5,259	<b>5%</b>	5,178	<b>-2%</b>	5,281	<b>2%</b>
Deerfield township	2,933	2,927	<b>0%</b>	3,119	<b>7%</b>	3,632	<b>16%</b>
Downe township	1,702	1,631	<b>-4%</b>	1,585	<b>-3%</b>	1,610	<b>2%</b>
Fairfield township	5,699	6,283	<b>10%</b>	6,295	<b>0%</b>	6,324	<b>0%</b>
Greenwich township	911	847	<b>-7%</b>	804	<b>-5%</b>	810	<b>1%</b>
Hopewell township	4,215	4,434	<b>5%</b>	4,571	<b>3%</b>	4,915	<b>8%</b>
Lawrence township	2,433	2,721	<b>12%</b>	3,290	<b>21%</b>	4,782	<b>45%</b>
Maurice River township	6,648	6,928	<b>4%</b>	7,976	<b>15%</b>	9,465	<b>19%</b>
Millville city	25,992	26,847	<b>3%</b>	28,400	<b>6%</b>	32,492	<b>14%</b>
Shiloh borough	408	534	<b>31%</b>	516	<b>-3%</b>	523	<b>1%</b>
Stow Creek township	1,437	1,429	<b>-1%</b>	1,431	<b>0%</b>	1,436	<b>0%</b>
Upper Deerfield township	6,927	7,556	<b>9%</b>	7,660	<b>1%</b>	7,914	<b>3%</b>
Vineland city	54,780	56,271	<b>3%</b>	60,724	<b>8%</b>	74,144	<b>22%</b>

As explained in the section on methodology in Part I. The seasonal estimates for visitors in Cumberland and Salem counties were found to be too high. The need to improve the methodology goes beyond this project.

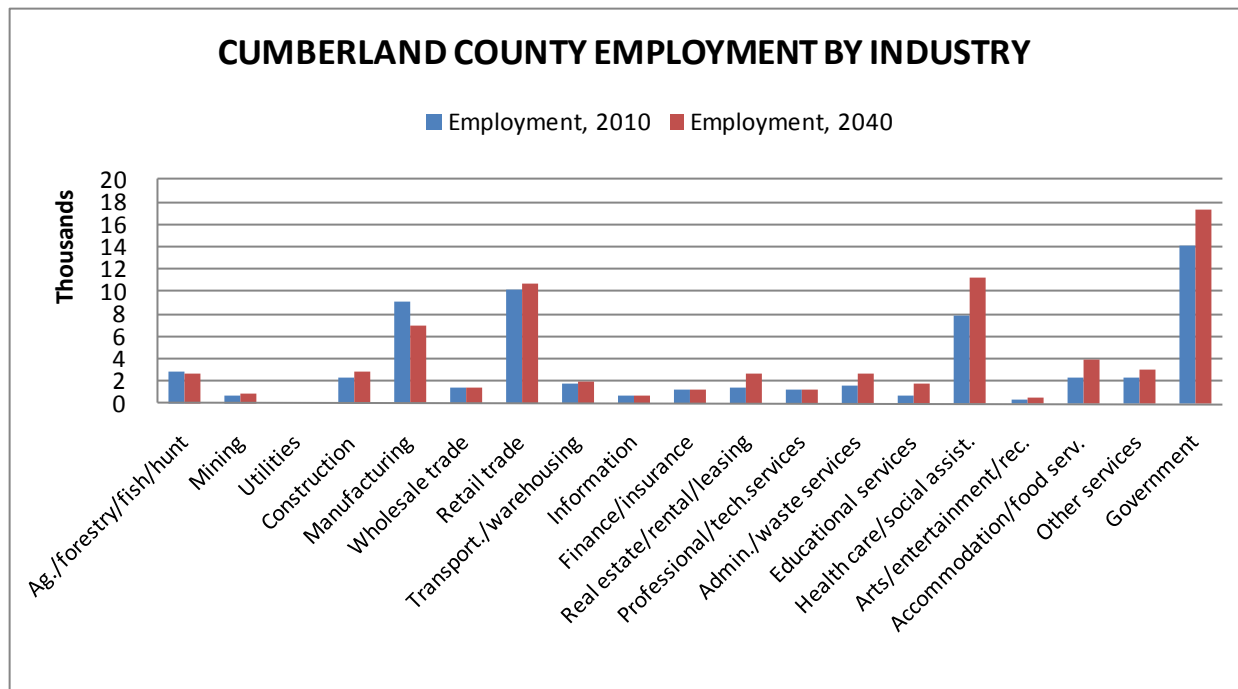
### **Salem County Projections**

The projected growth patterns in Salem County indicate large changes in a county that has been stagnant for over 40 years. While the population growth is expected to finally begin to accelerate, the overall thirty-year increase is projected to be 13,000 residents. This growth forecast is based on expectations that growth will continue to move south from the Philadelphia

**TABLE 14**

SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL EMPLOYMENT PROJECTIONS								
CRBR, 2011								
				Growth %		Growth %		Growth %
	1990	2000	1990-2000	2010 (est.)	2000-2010	2040	2010-2040	
<b>Cumberland County</b>	59,600	60,442	1%	59,330	-2%	71,055	20%	
Bridgeton city	11,694	10,260	-12%	10,235	0%	12,483	22%	
Commercial township	360	547	52%	390	-29%	442	14%	
Deerfield township	931	733	-21%	923	26%	1,143	24%	
Downe township	53	375	604%	455	22%	564	24%	
Fairfield township	764	1,617	112%	1,021	-37%	1,159	14%	
Greenwich township	47	95	102%	60	-37%	68	14%	
Hopewell township	264	166	-37%	105	-37%	119	14%	
Lawrence township	669	1,088	63%	687	-37%	780	14%	
Maurice River township	266	469	76%	2,544	442%	3,152	24%	
Millville city	12,652	11,595	-8%	10,354	-11%	11,757	14%	
Shiloh borough	48	175	262%	88	-50%	100	14%	
Stow Creek township	51	516	915%	325	-37%	370	14%	
Upper Deerfield township	1,537	2,050	33%	1,898	-7%	2,156	14%	
Vineland city	30,263	30,755	2%	30,245	-2%	36,878	22%	

**CHART 5**



area and that the Route 295 corridor will attract both residents that commute to the Wilmington and Philadelphia metro areas as well as new employment opportunities in the county.

The population of the county is projected to grow by 20% over the thirty-year forecast period. This slightly exceeds the SJTPO Region's expected 19.4% increase. The pattern of growth across municipalities will be uneven with Pittsgrove (28%) and Pennsville (29%) contributing the majority of the population growth.

In term of employment, growth will be moderate at 36% compared to the SJTPO Region's 21% increase. At the municipal level, Carney's Point (51%), Pennsville (28%) and Woodstown (49%) will be adding the majority of the new jobs while also having some of the highest growth rates. The moderate growth of employment does reverse trends experienced over the past two decades when population growth exceeded employment growth. However, as referenced in the summary of the long-term outlook from Moody's Analytics (see Chapter I), the western part of the region is expected to benefit from its relatively low business costs and attract businesses escaping the higher costs in the more urban areas of the Delaware Valley. Several of the scenario planning workshop participants supported this view.

Finally, the mix of industries is expected to change as manufacturing falls from 13.5% of the employment base in 2010 to 8.7% in 2040. Retail trade will also lose share but shows modest growth (7%). Transport/warehousing, real estate, administrative services, healthcare and accommodations/food services are all expected to gain share in the mix while the largest increases will be in transport/warehousing (139%), and real estate (217%). Administrative services will add nearly 1,400 jobs, doubling its number over the forecast period.

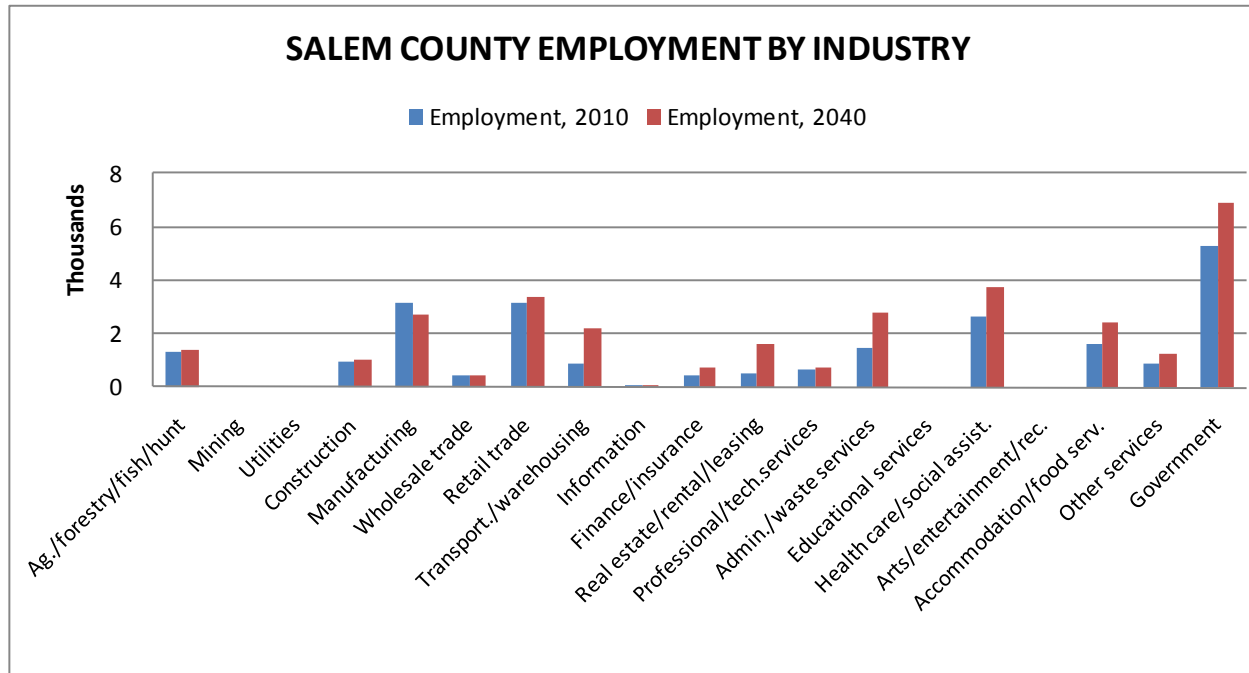
TABLE 15

SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL POPULATION PROJECTIONS								
CRR, 2011								
				Growth %		Growth %		Growth %
	1990	2000		1990-2000	2010	2000-2010	2040	2010-2040
<b>Salem County</b>	65,294	64,285		-2%	66,083	3%	79,078	20%
Alloway township	2,795	2,774		-1%	3,467	25%	4,987	44%
Carneys Point township	8,443	7,684		-9%	8,049	5%	9,957	24%
Elmer borough	1,571	1,384		-12%	1,395	1%	1,450	4%
Elsinboro township	1,170	1,092		-7%	1,036	-5%	1,035	0%
Lower Alloways Creek township	1,858	1,851		0%	1,770	-4%	1,786	1%
Mannington township	1,693	1,559		-8%	1,806	16%	2,277	26%
Oldmans township	1,683	1,798		7%	1,773	-1%	1,806	2%
Penns Grove borough	5,228	4,886		-7%	5,147	5%	6,077	18%
Pennsville township	13,794	13,194		-4%	13,409	2%	17,286	29%
Pilesgrove township	3,250	3,923		21%	4,016	2%	4,482	12%
Pittsgrove township	8,121	8,893		10%	9,393	6%	12,018	28%
Quinton township	2,511	2,786		11%	2,666	-4%	2,667	0%
Salem city	6,883	5,857		-15%	5,146	-12%	5,139	0%
Upper Pittsgrove township	3,140	3,468		10%	3,505	1%	3,813	9%
Woodstown borough	3,154	3,136		-1%	3,505	12%	4,333	24%

TABLE 16

SJTPO 2040 DEMOGRAPHIC FORECAST								
MUNICIPAL EMPLOYMENT PROJECTIONS								
CRR, 2011								
				Growth %		Growth %		Growth %
	1990	2000		1990-2000	2010 (est.)	2000-2010	2040	2010-2040
<b>Salem County</b>	23,998	22,704		-5%	22,152	-2%	30,052	36%
Alloway township	318	646		103%	524	-19%	659	26%
Carneys Point township	1,487	2,274		53%	3,022	33%	4,562	51%
Elmer borough	1,777	1,593		-10%	1,594	0%	2,005	26%
Elsinboro township	67	106		59%	152	44%	226	49%
Lower Alloways Creek township	2,416	679		-72%	978	44%	1,454	49%
Mannington township	1,575	992		-37%	1,428	44%	2,124	49%
Oldmans township	996	726		-27%	525	-28%	660	26%
Penns Grove borough	1,200	1,138		-5%	1,119	-2%	1,407	26%
Pennsville township	6,873	4,121		-40%	3,526	-14%	4,497	28%
Pilesgrove township	330	1,042		216%	1,500	44%	2,231	49%
Pittsgrove township	800	3,178		297%	1,685	-47%	2,119	26%
Quinton township	137	150		9%	291	95%	433	49%
Salem city	3,919	3,329		-15%	3,164	-5%	3,979	26%
Upper Pittsgrove township	592	967		63%	688	-29%	865	26%
Woodstown borough	1,511	1,765		17%	1,886	7%	2,804	49%

CHART 6



# ***SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION***

## **2040 DEMOGRAPHIC FORECAST**

### **III. GROWTH SCENARIOS**

#### **Introduction**

The use of baseline forecasts over a 30 year period is usually insufficient for transportation planning purposes. Even if projections are updated every five years, there is the need to know why growth patterns might diverge from baseline predictions. Often the growth factors can be detected long before statistics are available to confirm high or low growth paths. This is especially true in period of rapid change. In addition, due to the large capital expense involved in infrastructure investment, it is necessary to consider alternatives when sizing projects so that the most efficient investment can be made.

The use of scenarios is recommended by the FHWA and its newly released guidebook was used to plan the focus group sessions held. The material supporting this process is provided in **APPENDIX D**. The *FHWA Scenario Planning* Guidebook can be found in its entirety at:

<http://www.fhwa.dot.gov/planning/scenplan/guidebook/>.

#### **Methodology**

The process included the preparation of baseline forecast for the invitees to consider. An attempt was made to invite both planners and users of the transportation system as well as those familiar with the patterns of growth in the region. These included consultants, educators, newspaper editors, Chamber of Commerce representatives, utility managers and TAC members. The questions sent to the participants ahead of time asked them to consider:

- 1) Any real constraints that the baseline forecast may have not taken into account.
- 2) What factors may cause higher or lower growth trends than those represented by the baseline forecast?
- 3) What growth pattern would you envision as the “preferred” one considering your experience in with the transportation network.



- 4) What are the implications of your high and low growth scenarios for the transportation network? Would you plan differently for any of the three scenarios?

Two sessions were held in an attempt to offer a convenient time and place for as many participants as possible. This also allowed each session to concentrate on a two-county area.

The list of attendees at each session is in **APPENDIX D**.

### **Scenario Building Workshop Results**

The comments from each session are given below as they may imply different consequences to different readers. Names and any other sources of identification have been removed. The comments are summarized at the end of each session.

#### **Comments from the Atlantic/Cape May group:**

##### **General regional comments:**

- Retirement market . . . for NJ to compete, there will have to be a huge shift in taxes. It is expensive here and people who are looking to retire are now using cost as the main criteria rather than living near their children.
- People who come to SJ come from Blue Route area, Gloucester Co., people who know the area, come here as kids, etc.
- Retirement numbers may be growing, but people still have to sell their house before buying a retirement home.
- Baby boomers are a growing population.
- Next Gen?
- Governor's plan to make SJ family friendly—see any effect?
  - No comment
  - Perception of crime in the city
  - Enhanced restaurant/night club revenue
  - Growth of condo development
  - Reduced number of gaming houses—a minus in terms of employment

##### **Atlantic Co.**

- Hard pressed to find this county's numbers growing, specifically in Atlantic City. Looking as a decrease, actually.
- Thank you for doing this, we will use your numbers. Do we suspend belief in the last 5 yrs and look with a broader perspective? I'm not going to say we're going to decline, but I don't see the growth . . . vacancies, going out of business, no commercial building, etc. Who know when the existing supply will be used. So, what potential do we have? Need to branch out and bring other kinds of production (than existing supply) to the county to create jobs.

- Senior housing—any residential at all—has dried up completely. Nothing coming to the planning board.
- Malls having a problem attracting/keeping tenants.
- The Walk success . . . is it a result of people who are here for gaming or residents? Apparently, 80% of the people shopping there do not enter the casinos, and the thought is that the success will only increase when the parking lot is developed. It is considered tertiary to the casino business.
- The bottom is falling out of the expressway traffic.
- FAA Tech Center is a huge generator . . . yet, it will probably just grow slowly and will help the County numbers.
- School enrollments leveling off.
- A few things are up in the air in Galloway . . . nothing much else going on. Hoping that with new drug stores coming in (i.e., CVS), other businesses will, too.
- Hammonton has done better in the last few years.

What would create lows:

- Over regulation, particularly in the growth areas . . . it's killing us. No industry will come here for what DEP and Pinelands will put it through. This stuff keeps us from being competitive.
- Convenience gaming markets (i.e., PA), plus upcoming markets of Aqueduct and North Jersey
- Boardwalk Hall is too small of a venue and lose money with every event

What would create highs:

- Next Gen
- Stockton (in both Galloway and AC in the arts areas, diversity in post grad programs)
- Stress diversification (but hard to do with state regs)
- Housing in AC for doctors and other health care workers
- Casinos—change and come back strong (not soon, but later). Have to become a destination, really, it never did.

### **Cape May Co.**

- Only one that had a loser, so it is difficult. Forecast will have modest growth.
- Number of affordable housing projects have been shot down.
- Not much being proposed.
- Sea Isle—commercial on first floor and housing above . . . that's all we've seen.
- No huge employers here anymore . . . Superfresh going out of business now.
- School enrollments have dropped off.

What would create lows?

- Not much land left
- Not easily accessible

What would create highs?

- Bridge to Delaware!

- Industry at the airport
- Brand name hotel attached to the convention center
- Ecotourism? It doesn't pay the bills/taxes
- Canadian tourism? Exchange rate is good, and there's been an effort to charter flights into the airport, but there are no support services (i.e., car rental)
- Morey organization continues to expand
- Wildwood Convention Center was a huge bonus to the region, the Cape May convention center not so much.

**Look at the geography of employment. Where would you reallocate employment? Is it in the right places now?**

In Cape May Co.

- Rio Grande
- Cape May Courthouse
- Woodbine Developmental Center
- Some of the in infrastructure improvements will help these three areas.

In Atlantic Co.

- EHT, around FAA
- Race Track
- Direct connector from expressway to airport
- AC for gaming and retail for those who work in gaming
- Revitalization of select downtowns, i.e., Hammonton, Egg Harbor

**Summary of Session 1:**

Clearly, there is a bias toward low growth in the near-term. This is in stark contrast to the results from the 2006 forecasts where planning for growth was the main concern. The biggest question marks are around the casino industry and the future for retirees and their investment patterns.

While slow growth is seen as the more probable pattern, the possibility of a return to higher growth was not ruled out.

Growth in both counties is preferred in areas with infrastructure, especially in Cape May where environmental constraints are very strict. The redevelopment of small cities – Hammonton, Sea Isle – is seen as preferred to take advantage of existing infrastructure. While improving the transportation network presents opportunities in both counties, it is clearly not the determining factor in future growth patterns.

## **Comments from the Cumberland/Salem group:**

### **RE: Trends**

- In ag industry in the area in past 10 to 15 yrs, there has been an increase in food processing plants and the establishment of the Rutgers Food Innovation Center in Cumberland Co.
- Many farmers in Cumberland Co. are going solar with their fields, this is the biggest trend toward solar farms. The incentives in NJ are better than any other state and that doesn't look like it is going to change any time soon.
- Affecting Salem Co., too. ACE is having infrastructure problems and have declined some requests for solar projects. Solar providers are extremely aggressive in the state right now because of the incentives in the state.
- Potential housing projects have gone the way of green acres . . . with the housing market down, solar farms are attractive to them. Another farm trend: going organic.
- Glass manufacturing is still hanging on here, spending money to upgrade/build furnaces.
- Recycling expanding, too.
- Distribution Centers, i.e., soymilk in Bridgeton, is a growth area.
- Increase in rentals vs. sales (residential market)
- Sustainability initiatives . . . getting hotter and hotter and will create drastic changes, i.e., more housing in walking distance to employment, increased brown fields

### **Initiatives that would affect . . .**

#### **. . . Highs:**

- Bringing Light Rail to Glassboro would allow for more growth; it was debated whether or not it will be delayed or move forward
- Huge growth in the Spanish market/population in both Salem and Cumberland Counties.
- South Jersey Gas no longer charging developers for hook ups .
- Talk of UMDNJ making a teaching hospital at the old Newcomb Hospital site, but it is only 'talk' at this point

#### **. . . Lows:**

- Salem Co. is seeing an exodus to PA across the bridge, because of rising property taxes.
- Salem Co. will take a hit with the close of three UEZs.

### **Where do you see employment:**

- Rt. 295 corridor, specifically trickling down from the far end of Gloucester Co.
- Rt. 130 corridor
- Bridgeton/Millville/Vineland
- Freezer warehousing expanding in Vineland
- Port Norris has oyster processing (like Atlantic City has clam processing); this port can handle big ships (albeit one at a time), but has the capacity; dry dock repair opportunity.
- Prison facility
- Upper Deerfield Twp.. Seabrooke: food processing expanding here and Clement Pappas upgrading its boilers

- New Rowan Blvd development, although more student than private housing-driven, it will positively affect the economy there. Anchor is not a big employer, but has some employment increases in its plans, yet small. Changing its product.
- Rebuilding rail from Swedesboro to downtown Salem. Involves three main clients.
- On the horizon, biggest thing is the collaboration for regional sewer with Gloucester Co. Idea is to close small treatment facilities and bring in a public/private partnership with DuPont. It is all about dollars.....Woolwich would be the primary beneficiary, Salem Co. would be secondary.
- Infrastructure at Exit 10 is going well, e.g., Goya foods, JE Berkowitz
- Farmland converting to solar farms . . . utility (ACE) is saying there is no venue to put excess energy from the solar arrays back into the grid; not sure this is true.
- Oldmans Twp could see some significant growth; Perry Farm has Ryan Homes going in, four to five lots at a time.
- Bailey Corner has low-income housing planned.
- Nuclear site at other side of the county is the other biggie . . . could be five to seven years away now with the Japanese disaster.
- Large homes are not the way of the future.
- Surprisingly, Pittsgrove and Pilesgrove seemed to have grown more than the numbers show.
- Salem downtown is progressing, Main St. program, a lot of investment, a new restaurant, but it's slow, a tough time.

#### **In AC:**

- Boutique casinos
- Sale of Trump Marina
- Revere gearing up again
- Stockton expansion – satellite campus in Hammonton
- Tech Center expansion
- Yet, don't really see a lot of employment growth here for the future
- Will people continue to retire here? There's a debate about this, as some forecasts point to people staying put

#### **Summary of Session 2:**

The second session was concerned primarily with the growth potential of Cumberland and Salem counties. While not completely upbeat, this group could see some cause for a growth pattern slightly more robust than in the past. This growth, however, is based on the expansion of the same industrial base of agriculture and manufacturing. There seems to be a move to push these industries into niche markets that can produce more value than the past mass market approach.

This group also looked to the continued development of areas with existing infrastructure. However, the conversion of farmland was also seen as a trend that was just beginning.

### **Growth Scenarios:**

Using the input of the focus groups, the growth bands reported in **TABLE 17** were developed. These were then used to produce a set of population bandwidths for each municipality and a corresponding set of employment high growth and low growth scenarios.

**TABLE 17**

<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>					
<b>POPULATION GROWTH SCENARIOS</b>					
<b>CRBR, 2011</b>					
		<b><u>2010</u></b>	<b><u>Low-2040</u></b>	<b><u>Mid-2040</u></b>	<b><u>High-2040</u></b>
<b>Atlantic County</b>		274,549	316,589	341,915	393,284
<b>Cape May County</b>		97,265	100,752	103,083	107,600
<b>Cumberland County</b>		156,898	180,643	186,178	191,825
<b>Salem County</b>		66,083	74,683	79,078	83,642
<b>SJTPO REGION</b>		594,795	672,667	710,254	776,351

The growth bands for the SJTPO Region range from 13% growth in the low scenario to 19% in the mid-range one to 30% in the high-growth scenario. The spread is greatest in Atlantic County, primarily due to its role as an employment generator for most of the region over the past twenty years. The population growth ranges from 15% to 25% to 43% across the three scenarios for Atlantic County.

# ***SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION***

## **2040 DEMOGRAPHIC FORECAST**

### **IV. RECOMMENDATIONS**

Recommendations based on the development of the *2040 Demographic Forecast* are made below. They are principally concerned with the areas of process and the needs of the transportation models that use the outputs of this project.

The process issues include:

- The timing of the updates and the needs of the planning models should be considered. The review of the data elements and their projections takes a longer time when there are a greater number of them and when the future patterns are more uncertain.
- The TAC members need to have more time to not only to review the data but to work with the consultant on analytical methods that would yield greater certainty in the forecasts.
- The data items in some cases are either difficult to create given the available data or else do not have sufficient historical data to back them up. The most important case is the lack of reporting on NAICS-level employment data at the municipal level.

Modeling issues include:

- The transportation planning models demand a great deal of data that is in reality very ‘thin’. That is, it is based on data that contains a number of non-reporting omissions as well as levels of disaggregation that cannot be supported by existing data. While TAZ-level data can be produced, it will always be an average of the tract or municipality that it resides in.
- Some of the data elements, while very important to the planning process, are not best estimated from an economic/demographic framework alone. Clearly, the seasonal estimates need to be supplemented by actual counts on the roads that are most used as well as by survey data. While the current methodologies can certainly point in the right

direction and may be sufficient for very broad estimates, other methodologies should be explored.

- Lastly, as was much discussed in the course of the project, a 30-year projection would benefit greatly from existing build-out studies for each municipality and a land-use component to better identify the locations of employment and population growth. It is recommended that this initiative is undertaken on a small scale as a pilot to identify tools that can help complete these tasks in a reasonable time and at a reasonable cost. New methods using advance GIS mapping tools, aerial photographs and infra-red censoring tools appear in the literature. The TAC should cooperate on a pilot project.



# ***SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION***

## **2040 DEMOGRAPHIC FORECAST**

### **APPENDICES**

**APPENDIX A: PROPOSAL**

**APPENDIX B: MEETING DATES, PROGRESS REPORTS  
AND MINUTES**

**APPENDIX C: REQUIRED DATA WORKSHEET**

**APPENDIX D: SCENARIO DEVELOPMENT -**

- INVITATION
- QUESTIONNAIRE
- ATTENDANCE AND MINUTES
- REFERENCE: *FHWA Scenario Planning Guidebook*, U.S. Dept. of Transportation, Sept. 2010

**APPENDIX E: FINAL EMPLOYMENT AND POPULATION  
PROJECTIONS BY MUNICIPALITY**

**APPENDIX F: BROCHURES**

**APPENDIX A:**

**PROJECT PROPOSAL**

**PROPOSAL FOR:**

**SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION**

**YEAR 2040 DEMOGRAPHIC FORECAST**

**I. Technical Proposal**

***Technical Approach***

**PART A: Data Collection Component**

The effort, tasks and products required to complete the project are detailed below:

- Data Collection: Core Data Requirements

Long-term forecasts are risky at best and normally depend upon a set of assumptions about the performance of the state, regional and national economies. While short-term trends can be based on moving averages or shares of local activity, projections through 2040 need to be part and parcel of larger modeling efforts. Therefore, in order to provide accurate and defensible growth forecasts for the four-county SJTPO region, a **consensus forecasting method** will be used. To accomplish this, independent, county-level forecasts of the main demographic variables will be obtained from: the New Jersey Department of Labor; Moody's Economics ([http://www.economy.com/home/products/service\\_overview.asp?selVal=3&service=2&src=im-interested-in-uscounties](http://www.economy.com/home/products/service_overview.asp?selVal=3&service=2&src=im-interested-in-uscounties)); and, Woods and Poole Economics (<http://www.woodsandpoole.com/main.php?cat=state>). A consensus mid-range forecast will be established with a description of the rationale.

The Core Data Requirements will be developed from these data sets and the available historical trends from the 1990 and 2000 Census data as well as the annual American Community Survey files. Historical data is available at the county and municipal levels. The SJTPO regional level data will be the composite of the four component counties. The required historical information not contained in these reports for housing starts is available from the NJ Department of Labor's Data Center.

The employment and population data will be supplemented by information on commuting patterns and vehicle ownership contained in the U.S. Census Transportation Planning Package and the American Community Survey where available.

- Data Collection: Summer Demographics

The data required for both Summer Weekday (*SWD*) and Summer Weekend (*SWE*) is not directly available from other sources. While the definitions of visitors and population generally differ, there are some methodologies that can be followed to derive both. For instance, the Uniform Crime Reports (<http://www.njsp.org/info/ucr2006/pdf/2006-sect-8.pdf>) for New Jersey use a methodology prescribed in P.L. 1998, c. 50 to estimate a mean seasonal population for resort towns in coastal communities. This uses the vacancy rate for housing units and does not include motels, campgrounds, etc. On the other hand, the Cape May County visitor estimates referenced in the RFP do include day-trippers, campgrounds, motels, etc. The *CRBR* has estimated peak-summer and weekday summer populations for Atlantic County in the past.

This proposal recommends using a combined methodology that uses a percentage of occupied housing units for weekdays and a higher percentage for weekends to approximate populations by municipality for the historical years. Visitors will be estimated using the traffic counts to be reported by counties this summer. An off-season baseline will be established, and the seasonal numbers will be derived by changes in the traffic counts. These will yield county-level estimates. Municipal shares will be established based on both vacant housing units and number of hotels/motels from the latest available economic census.

Seasonal employment data exists at the municipal level ([http://lwd.dol.state.nj.us/labor/lpa/employ/qcew/qcew\\_index.html](http://lwd.dol.state.nj.us/labor/lpa/employ/qcew/qcew_index.html)) by place of employment and NAICS industry. This data will be used to set-up a baseline for the four employment components required.

- Data Collection: Comparison of SJTPO Regional Data to New Jersey Data

Because all of the sources to be used in the consensus forecast also provide state-level projections, this comparison will be straightforward.

## **PART A: Forecasting Component**

- Forecasting: Preparing Forecasts

From the data collected as described above, many of the main county-level demographic and employment variables will be provided by the consensus forecast providers. These will form the basis for forecasting the remaining variables. This will be done in two steps:

1. The main demographic and employment variables will be forecast at the municipal level. This will be done by examining the trend in the municipal share of the county variable from 1990 to the last historical data point.

2. Variables not projected by the outside services (e.g. housing unit vacancy rates) will be projected using either the same method as above, a moving average of the historical shares, or by calculating from the available information (e.g., vacancy rates can be deduced from number of units and people per household in the non-seasonal population).

Forecasts for the summer employments, populations and visitors will be done by keeping the estimates between non-seasonal and seasonal populations in a consistent relationship over time.

- Forecasting: Preparing a Technical Report

The technical report will contain all data sources and methodologies. An overall approach will be described. In addition, a variable by variable matrix will be developed so that each forecasted variable can be duplicated from the source data.

- Forecasting: 2010 Census Spreadsheet

A Microsoft EXCEL worksheet will be developed which will automatically calculate projected values based on replacing the projected 2010 data with Census data. The spreadsheet will be constructed based on growth rates from the 2010 baseline and all formulas will be consistent with the matrix of calculations described above.

In addition, **all tables and maps for reporting purposes will be constructed with links to the revised baseline and projections** so that the final report can be easily revised when the 2010 Census data is available.

## **PART A: Reporting Component**

- Reporting: Profile Report

Using tables, maps (described in the following section) and other visuals as well as a summary of the methods and findings, a 6-8 page profile report will be developed and provided in a digital format for easy viewing, printing, and linking to a website. The report will have sections by county and the SJTPO Region that are self-explanatory and can be printed separately.

- Reporting: Presentations

A presentation of the results of the study will be prepared that can be used by TAC, Board or other parties. It will contain a Powerpoint presentation, four poster-size presentation boards (for

the consultant presentation and digital file for others to use), and downloadable files of the Profile Report.

The entire team will be available for the presentation meetings to the TAC and the SJTPO Policy Board.

### **PART A: Mapping Component**

- Mapping: Geospatial Files

The numerous shapefiles will be developed using a base map agreed upon with the SJTPO staff. Using ArcGIS 9.3.1, each shapefile will be accompanied with the source data in EXCEL format. The maps will be formatted from a template that can be used for presentation graphics if desired.

The geospatial maps will be catalogued and placed in a file structure that can easily be searched for a particular map. An index will be provided.

- Mapping: Visualization Techniques

Due to the large number of variables to be forecast, major trends will be identified in meetings with SJTPO staff for further illustration. Again, templates for charts, graphs and maps will be developed so that source data can be linked to them for display.

### **PART A: Scenario Building Component**

- Scenarios: Building and Reporting

Recognizing that many of the techniques referenced on the FHWA website are beyond the budget for this proposal, the preferred method for this project would be focus groups with SJTPO staff members, county planners, and appropriate other agencies. These would be preceded by some general assumptions for low, medium, and high growth scenarios to be tested in the focus group meetings.

However, recognizing that the SJTPO would like to utilize scenario planning for its next RTP, a consultation on methods would be beneficial so that there would be some consistency and learning from one this project to the later one.

Once again, the use of templates for visualization techniques will allow the scenarios to be presented easily given the source data files.

**PART B: Disaggregation to the TAZ and 2000 Census Tract Levels**

The disaggregation of data to the census tract level will be performed much the same as the municipal data is constructed from the county-level data. Using shares from historical Census data, each tract in the four-county region will be assigned the data variables required.

The census tract data will be consistent with the municipal totals, which are consistent with the county totals.

**APPENDIX B:**

**MEETING DATES, PROGRESS REPORTS  
AND  
MINUTES**



### **Meeting Dates**

The SJTPO awarded the *2040 Demographic Forecast* contract to the *CRBR* on October 25, 2010. Meetings were held at the offices of the SJTPO on:

Jan. 20, 2011

March 14, 2011

June 7, 2011

June 30, 2011

July 11, 2011

September 12, 2011

In addition, two Scenario Planning Workshops were held:

March 25, 2011 at Atlantic Cape Community College in Mays Landing, NJ

April 1, 2011 in Woodstown, NJ

## Meeting Minutes and Progress Reports

### **Project: Year 2040 Demographic Forecasts**

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**SUBJ: Kick Off Meeting at SJTPO office (South Jersey Transportation Planning Org.)**

**DATE: 1/20/11**

In attendance for SJTPO (<http://www.sjtpo.org>):

1. Alan Huff, Transportation Planner
2. Bill Schiavi, CPA, Manager of Regional Planning
3. David Heller

For CRBR Team (Center for Regional & Business Research, ACCC):

1. Dr. Richard Perniciaro, Dean
2. Marie Holmdal, Marketing Communications
3. Luis Olivieri, Sr. Mgr. GIS

#### Meeting Notes:

Per Richard: What will we be given by the other consultant?

URS Consultants in Ft. Washington, PA, are the main modeling consultants. Luis needs a main contact . . . David will email it to him after the meeting.

#### **The schedule. 4/29/11—Target end date.**

TAC meets every second Monday of the month, if we wish to run by them anything for feedback. 2/14/11 is the next meeting. Scenarios (highs and lows were of most interest in the past, rather than the center lines) will not be done then, but we can provide some information (i.e. the steps in the process) either in person or via email per Richard.

Focus Groups should be put together from the TAC group, plus some other municipal and econ dev people. SJTPO will do a solicitation to gather a group. We will provide a recommended list of people outside TAC. Five or six people per group from each of the four southern counties. Hold them in Atlantic Co. and in Salem Co.

Who should send focus group invite letters? Richard to send SJTPO a letter and they will forward to Focus Group participants. Content of letter: Methodology and why we are doing it. Third week of Feb., we should send them the highs and lows, only municipal data, and ask for input thru focus group around end of Feb./beginning of March.

We (this group) will present at TAC March mtg.

Marie to review profile. Luis to present TAZ data; he needs to determine how best to present the data. (David will give him older TAZ data to see what they looked like.)

Traffic analysis zones—we will receive a SHAPE file. The TAZs will be mapped, but we have to overlap the census track to them.

SJTPO has to keep an eye on its deadlines (in Spring) and work it into its calendar.

#### **Profile Reports and Presentation Boards for SJTPO Staff Use (M&M Communications work):**

**Template file needed** (built around the common information, i.e. population, housing units, whatever they choose) for data for maps and bar charts. All data would come from an Excel spreadsheets.

Want to show examples, e.g., here's what a TAZ is. Will do some **general content boards and some specific content boards.**

For instance, at a public meeting, they want the option to pull up a template to show on a screen, so will need a few **PowerPoint slides.**

Luis can provide maps they can show in various mapping software . . . he suggests interactive rather than static.

**Profile report** (approx. 6 pgs) will be summary information that SJTPO will post to its website.

**Key Dates Going Forward:**

**2/7/11**—County projections due from Richard. Determine the locations of the Focus Groups at this time.

**2/14/11**—Meet with TAC briefly (re: County Level, Focus Groups). Pre- or Post-meeting we (this group) will meet to finalize the procedure, review potential focus group participants, and review/determine presentation materials (i.e. graphs, tables) required.

**End of Feb**—hold Focus Groups. Our group to review municipal, county and scenarios (hi/lo). At this point, we (this group) will know the final numbers (year 'round).

**March 14**—go to Tac meeting with results.

**Draft report due a few days after this meeting . . . 3<sup>rd</sup> week in March.** *Take the next month to go through it and have the final at end of April (29<sup>th</sup>), during which time we will work on the presentation materials (M&M Communications).*



Economic, Marketing, Regional  
& Workforce Studies

Richard C. Perniciaro, Ph.D.  
Director

January 2011

To: W. Schiavi, SJTPO  
Re: March 31, 2011 Update

The Center for Regional and Business Research (CRBR) has been contracted to develop the *2040 Demographic Projections* for the SJTPO. The kick-off meeting was held on January 20, 2011 at the SJTPO office. In the remainder of the first quarter of 2011, the following tasks were completed or begun:

1. Corresponded with URS on TAZ requirements and final forms.
2. Developed baseline county-level projections for employment and population for SJTPO review.
3. Developed baseline municipal-level projection for employment and population based on shares of each and recent trends.
4. Using 1995-2010 trends, developed both high-growth and low-growth scenarios for county and municipal population and employment projections through 2040.
5. Presented baseline and scenarios to the TAC on March 14, 2011 at meeting held at SJTPO. Collected input from members.
6. Following TAC meeting, developed Focus Group agendas and invitations to three focus group sessions to be held April 1 and April 8. Arranged sites and invited others from utilities, banks, media, and chambers.
7. Continued dialogue with TAZ consultants.
8. Began development of sectoral employment data based on Economic Census data. Also, finalized the methodology for seasonal employment data based on trends in peak to trough monthly employments at county and municipal levels.



Economic, Marketing, Regional  
& Workforce Studies

Richard C. Perniciaro, Ph.D.  
Director

March 7, 2011

RE: 2040 Demographics, Update

As requested, below is an update of project timelines and activities:

1. The baseline projections have been submitted to SJTPO for review. CRBR is working on the tract level projections as the Census 2010 data for population at that level is now available. The TAZ-level data will be entered on a preliminary basis using the existing boundaries, but GIS representation of the tract data will be completed by March 23<sup>rd</sup>.

The standard high and low projections for population and employment will be submitted to SJTPO by March 10<sup>th</sup> for review and discussion of the methodology will be discussed with the TAC on March 14<sup>th</sup>. It is important that the TAC and SJTPO agrees with the base case mid-projections before reviewing the scenario projections.

The scenario development sessions will be held on March 25<sup>th</sup> at ACCC and April 1<sup>st</sup> at either Cumberland or Salem planning office. Invites for these sessions will be distributed at the TAC meeting on March 14<sup>th</sup> with the base case high and low projections. Other potential attendees will be invited by e-mail.

Following the finalization of the base case population and employment data, the remaining non-summer/year-round data items will be finalized in two weeks time (by March 28<sup>th</sup>). The housing data will be based on 2010 county unit counts but made updateable with the Census release in May.

The summer dataset: methodology will be discussed March 10<sup>th</sup> with SJTPO, discussed with TAC on March 14<sup>th</sup>. The data items will also be delivered on March 28<sup>th</sup>. The TAZ data may be later depending on delivery of the boundary maps from the consultant.

Following the April 1<sup>st</sup> scenario development workshop, adjustments to the base case high and low projections will be made and a “desired” growth scenario developed from focus group input. These will be mapped to compare to the base case projections.

CRBR and SJTPO should meet in the week of March 28<sup>th</sup> to review the projections to date and decide on the presentation material to be developed.

All products for review – including mock-ups of the presentation material and county summaries – by April 25<sup>th</sup>.

2. The letter to be sent to TAC is attached. It asks them to review the base case mid-projections for population and employment at the municipal level. In addition, we will brief them on the methodologies to be used for the low and high cases as well as the seasonal projections.
3. On March 9<sup>th</sup> I will email SJTPO the high and low growth scenarios for population and employment at the municipal levels. These are based on trend growth from 1990 to 2005 for the high case. The low case is based on 2005 to 2010 growth trends (those influenced by the recession). These will be used for a discussion on March 10<sup>th</sup> or 11<sup>th</sup> which will include a discussion on the seasonal methodology to be used.



Economic, Marketing, Regional  
& Workforce Studies

Richard C. Perniciaro, Ph.D.  
Director

## **SJTPO DEMOGRAPHIC PROJECTIONS, 2040 UPDATE AND REVIEW JUNE 30, 2011**

### **Activities to date:**

- Initial TAC meeting, reviewed baseline employments and populations by county and municipality.
- Mapping of baseline data and wetlands.
- Refined TAZ definitions to % of municipality and census tracts.
- Held focus group meetings (3) for scenario development; constructed high and low growth scenarios.
- Collected available Census 2010 data on population, race, age and housing units. Also, built input file with historical data on requested variables.
- Completed projections and sent out data for second review.
- Developed brochure template for distribution; same template for powerpoint presentation describing the project.

### **Data developed:**

- Employment down to TAZ level for total/industrial/office/other.
- Employment for same categories for municipalities through 2040; includes summer weekends and weekdays.
- Employment by NAICS by municipality through 2040, annual.
- Unemployment rates by municipality through 2040.
- Population by race and age, annual by municipality and just population by TAZ.
- Summer weekday and weekend for: residents (occupied/vacant housing units); and total in-town estimates using hotels/motels/campgrounds/marinas/in-commuting workers/ and, increased traffic counts for day-trippers.
- Assembled baseline historical data for 1990, 2000 for: zero-vehicle HHs and Limited English Proficiency (LEP) population – not yet available for 2010.
- Projected household and housing unit data, vacancy rates, PPHH and median HH income.

## Comments received:

### 1) Overall Growth:

To take advantage of the models available to forecasting services and to retain consistency in the pieces, especially population/employment relationship, external forecasts are used. Three are considered, with the near-term being a large factor. The NJDOL, Woods & Poole and Moody's Economics projections were considered.

SJTPD - Prelim PROJECTIONS						
<u>Population</u>						
	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2025</u>	<u>2040</u>	
ATL WP	225,431	252,980	275,531	314,156	354,474	
ME	225,431	253,038	273,240	301,263	340,281	341,915
DOL	225,431	253,038	274,549	302,380	341,542	
CM WP	95,368	102,308	97,919	114,317	131,338	
ME	95,368	102,307	97,265	99,760	101,541	103,083
DOL	95,368	102,307	97,265	94,640	96,330	
Cumb WP	138,366	146,351	157,753	165,997	175,106	
ME	138,366	146,362	158,945	172,836	188,607	186,178
DOL	138,366	146,362	156,898	172,740	188,503	
Salem WP	65,383	64,216	66,083	72,775	79,078	
ME	65,383	64,213	66,804	74,069	82,741	79,078
DOL	65,383	64,213	66,083	68,360	76,364	

### 2) Individual townships:

Build-outs are not known before projecting at the MCD level. There is the possibility that some municipalities will hit the wall somewhere in the projection time period. This requires county level input.

Where noted by county planners, these towns will be reviewed. However, unless there is a land-use or other known constraint, the projection will probably stand.

### 3) Seasonal estimates:

Take with a grain of sand. The methodology is solid, but the data is uneven and some estimates on occupancy levels are not from county-by-county surveys.



#### 4) NAICS data will (has) been discontinued:

Municipal reporting of employment by place of work is going away. Reporting is at a much more general level (public, private, total). Therefore, modeling at this level will become very difficult. An example of the data used in this report is shown below:

	ELMER									
		2192	1892	1839	1940	1978	2025	2079	2140	2235
Agriculture, forestry, fishing and hunting		414	300	245	250	244	239	234	230	230
Mining		0	0	0	0	0	0	0	0	0
Utilities		0	0	0	0	0	0	0	0	0
Construction		223	96	65	67	67	67	67	68	69
Manufacturing		0	16	12	12	12	11	11	11	10
Wholesale trade		113	56	71	71	68	65	63	60	59
Retail trade		0	300	309	313	317	320	324	327	331
Transportation and warehousing		84	52	75	89	101	115	131	148	171
Information		0	0	0	0	0	0	0	0	0
Finance and insurance		158	129	100	108	111	116	120	125	132
Real estate and rental and leasing		0	0	0	0	0	0	0	0	0
Professional and technical services		85	62	53	54	53	52	51	50	49
Management of companies and enterprises		0	0	0	0	0	0	0	0	0
Administrative and waste services		62	52	92	105	114	124	136	149	166
Educational services		0	0	0	0	0	0	0	0	0
Health care and social assistance		790	653	607	650	667	686	708	731	767
Arts, entertainment, and recreation		0	0	0	0	0	0	0	0	0
Accommodation and food services		124	85	117	126	129	133	137	142	149
Other services, except public administration		46	32	27	29	29	30	30	31	33
Unclassified entities		0	0	0	0	0	0	0	0	0
GOVT.		93	60	65	67	67	67	67	68	69

Economic, Marketing, Regional  
& Workforce Studies

Richard C. Perniciaro, Ph.D.  
Director

## **SJTPO DEMOGRAPHIC PROJECTIONS, 2040 RESPONSES TO TAC CONCERNS July 8, 2011**

### **Comments received:**

#### **1) Cumberland (B. Brewer)**

- Bridgeton, Maurice River and Fairfield have significant prison populations. These will not grow and, hence, they should be separated from the civilian growth.

Yes, they should be if we knew that the two – group and civilian – were divergent. This is not the case in Fairfield, as both were stable in 2000 – 2010 as is the forecast. In Bridgeton, the civilian population grew by 10% in the decade (18,311 to 20,139) and group pop. by 17%. The 2010-2020 projection is for overall 9.2% growth, more a reflection of the civilian pattern. In Maurice R. the group pop. Was 21% from 2000-2010 but civilian was also high at 9.1%. The next ten years show 12% growth, not too far from the last civilian rate.

In short, with the prison populations growing with the civilian pop, in Maurice R. and Bridgeton and Fairfield both being flat, the projections should not be overly influenced by the projection of the totals. Not knowing the continued trends in the prison populations, changes would be better, but very small in overall results.

- Lawrence shows high growth for 2010 to 20120. Yes, but it grew over 20% in the past decade and in a slow-growing county it picks up growth in the next decade then moderates. Yes, could be a little slower, but would still be high relative to the rest of the county.

#### **2) Vineland (K. Hicks)**

- Vineland Dev. Ctr. will probably close.

Maybe. This is a timing problem. Not knowing the actual outcome, the projections will be completed prior to actual closing. While we could

subtract out the employment, we would have no history to go on for the impact on population, income, etc. This probability will be noted, but analyzing the overall impact would take more time and go beyond the term of the contract at this time.

- The summer visitor counts are too high (Cumberland and Salem (L. Joyce) counties.

Yes they are. In Salem and Cumberland counties the use of traffic counts as estimates for day-trippers has led to overestimates. In reality, this traffic is both passing through as well as bringing visitors to the counties. This problem is not nearly as severe in Cape May and Atlantic as they are generally destinations. While traffic counts were used where available, this will be corrected by using 50% of the traffic count seasonal increases vs. 100% in the original estimates.

### 3) Overall Growth in Salem County (L. Joyce)

- To take advantage of the models available to forecasting services and to retain consistency in the pieces, especially population/employment relationship, external forecasts are used. Three are considered, with the near-term being a large factor. The NJDOL, Woods & Poole and Moody's Economics projections were considered.

SJTP0 - Prelim PROJECTIONS						
<u>Population</u>						
	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2025</u>	<u>2040</u>	
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<b>DOL</b>	65,383	64,213	66,083	68,360	76,364	

As the table shows, the mid-estimate was used for Salem. In addition, all three services anticipate modest growth as the 295 corridor fills up over the next three decades. While the NJDOL forecast ends in 2028 and is interpolated to

2040, both W&P and Moody's show growth as a continuation of 1990 – 2010 trends that showed high growth moving to southern Gloucester County and continuing on where access to major highways is available.

**4) Corbin City (J. Peterson)**

- The veritable explosion of population by 43 people in 30 years may not be possible...but it fell off the radar screen.
- Employment reported in 2008 is too high, should be held at 150.

**APPENDIX C:**  
**REQUIRED DATA WORKSHEET**

## Required Data:

	Non-Summer/Year-Round (Census-Like)			Summer Weekday (SWD) and Summer Week End (SWE)		
	Historic (1990, 2000)	Current (2000)	Future (2015, 2020, 2025, 2030, 2035, 2040)	Historic (1990, 2000)	Current (2000)	Future (2015, 2020, 2025, 2030, 2035, 2040)
<b>Total Employment</b>	Complete	Complete	Complete	Complete	Complete	Complete
Industrial Employment	Complete	Complete	Complete	Complete	Complete	Complete
Retail Employment	Complete	Complete	Complete	Complete	Complete	Complete
Office Employment	Complete	Complete	Complete	Complete	Complete	Complete
Other Employment	Complete	Complete	Complete	Complete	Complete	Complete
Unemployment rate	Complete	Complete	Complete			
<b>Total Population</b>	Complete	Complete	Complete	Complete	Complete	Complete
Population by five-year cohort	Complete	Complete	Complete			
Population, 65+	Complete	Complete	Complete			
Group-quarter population	Complete	Complete	Complete			
Total Household population	Complete	Complete	Complete			
Single-family	Not required					
Multi-family	Not required					
Zero-Vehicle Household Population	Complete	Complete	NA			
Median Household Income	Complete	Complete	Complete	Complete	Complete	Complete
Population, One Race	Complete	Complete	Complete			
White	Complete	Complete	Complete			
Total of "Population, One Race" minus "White"	Complete	Complete	Complete			
Black or African American	Complete	Complete	Complete			
American Indian & Alaska Native	Complete	Complete	Complete			
Asian	Complete	Complete	Complete			
Native Hawaiian & Other Pac. Islander	Complete	Complete	Complete			
Some other race	Complete	Complete	Complete			
Population, Two or more races	Complete	Complete	Complete			
Population, Hispanic or Latino (of any race)	Complete	Complete	Complete			
Limited English Proficient (LEP) Population	Complete	Complete	NA			
<b>Total Households</b>	Complete	Complete	Complete	Complete	Complete	Complete
Single-family Households	Not required					
Multi-family Households	Not Required					
Median Household Income	Complete	Complete	Complete	NA	NA	NA
Household size	Complete	Complete	Complete			
Single-family	Not required					
Multi-family	Not required					
Low-Income Households	Complete	Complete	NA			
Zero-Vehicle Households	Complete	Complete	NA			
<b>Total Housing Units</b>	Complete	Complete	Complete			
Occupied Housing Units	Complete	Complete	Complete			
Owner-Occupied Units	Not required					
Renter-Occupied	Not required					
Vacant Housing Units	Complete	Complete	Complete			
Summer Season	Complete	Complete	Complete			
Off Season	Complete	Complete	Complete			
Housing starts	Not Required	Not required	Not required			

Not required =Not needed or needed in a different form for model.

NA =Census 2010 data not released at time of study.

## **APPENDIX D:**

### **SCENARIO DEVELOPMENT:**

- **INVITATION**
- **PREPARATION NOTICE**



Economic, Marketing, Regional  
& Workforce Studies

Richard C. Perniciaro, Ph.D.  
Director

March 7, 2011

TAC Member

Dear :

The Center for Regional and Business Research (CRBR) is currently working with the South Jersey Transportation Planning Organization (SJTPO) to update its *2040 Demographic Projections*. This information serves as inputs to its Travel Demand Model, the principal planning tool for the region's transportation system. As a decision-maker about and/or a user of our region's transportation network, we would like to have you participate in a short workshop designed to create scenarios of alternatives to the trend growth patterns.

This workshop will follow the general guidelines for scenario development as recommended by the U.S. Department of Transportation (see: <http://www.fhwa.dot.gov/planning/scenplan/guidebook/>). In preparation for this exercise, we will provide you with the trend growth patterns in terms of employment and population at the municipal level and the general assumptions that they are derived from prior to the workshop. We will then ask you to think about some of your own scenarios about lower and higher growth rates based on your knowledge of the area. Unlike past scenario planning, we will then extend this to allow you to envision a "preferred development pattern" scenario. These will be discussed at the workshop.

The insight that you provide in developing these scenarios will then be used to estimate alternative demographic projections and, a bit more creatively, some alternative geographic distributions of population and employment based on factors that you specify as the basis for your preferred development pattern. These factors could include such drivers as sustainability, environmental benefits, efficiency, and quality of life. We will then use GIS techniques to actually visualize these alternative patterns.

Interested? Please plan to join us at one of the two workshops we will hold. Your colleagues are welcome as well. The times and locations are shown on the attached sheet. If you have any questions or concerns, please feel free to call either Bill Schiavo at the SJTPO (856-xxx-xxxx) or myself (609-343-5670). We look forward to your participation and ideas.

Sincerely,





YOU ARE INVITED  
TO:

SCENARIO PLANNING WORKSHOP  
FOR THE  
FOUR-COUNTY SJTPO SERVICE AREA

We would like you to share your insights and expertise!

Let us know your vision for the future development of the region by attending one of the two workshops below. Bring or send a colleague. We will start and finish on time.

WORKSHOP EAST: Friday, March x, 2011 from 8:30 – 10:00 AM

Atlantic Cape Community College  
5100 Black Horse Pike  
Mays Landing, NJ  
Room 245, J-Building (Administrative)  
Or

WORKSHOP WEST: Friday, March x+7, 2011 from 8:30 – 10:00 AM

Cumberland County Planning Department  
Rt. 49  
Bridgeton, NJ  
Room xxx, x-Building

Please RSVP by email with the names and titles of your representatives to:

[crbr@atlantic.edu](mailto:crbr@atlantic.edu)



Economic, Marketing, Regional  
& Workforce Studies

Richard C. Perniciaro, Ph.D.  
Director

March 2011

#### Focus Group Participants:

The Center for Regional and Business Research (CRBR) is currently working with the South Jersey Transportation Planning Organization (SJTPO) to update its *2040 Demographic Projections*. As a decision-maker about and/or a user of our region's transportation network, we appreciate your participation in this short workshop designed to create scenarios of alternatives to the trend growth patterns.

- This workshop will follow the general guidelines for scenario development as recommended by the U.S. Department of Transportation (see: <http://www.fhwa.dot.gov/planning/scenplan/guidebook/>).
- In preparation for this exercise, we are providing you with the preliminary growth patterns in terms of employment and population at the county and municipal levels. See the attached file: **FocusGroupData.xls**. Please review this data if you have time and/or share with colleagues for their comments.
- Finally, the questions below are for discussion in the focus group workshops:
  1. Review the baseline projections for your area of concern. Are the county projections sensible given your knowledge of the area? How about the municipal projections?
  2. Are there any real constraints that you know of that will NOT allow the growth to occur as projected such as zoning, environmental or regulatory realities.
  3. After looking at the high and low scenarios county projections, do you think that either one is too low or high? If so, what factors would be in play for you to make that assessment?
  4. Finally, let's use your insight to envision an alternative geographic distribution of population and employment which would lead to your **preferred development pattern**. These factors could include such drivers as sustainability, environmental benefits, efficiency, and quality of life.
  5. What are the implications of these projections for the transportation network? How would the transportation network "look" if the preferred pattern was developed?

Thank you in advance for planning to join us at one of the two workshops; March 25<sup>th</sup> at Atlantic Cape Community College (Admin. Building, Room J-245); or April 1<sup>st</sup> at the Ware Agricultural Building in Woodstown. Both begin at 8:30 AM and end at 10:00 AM.

If you have any questions, please call either Bill Schiavi at SJTPO (856-794-1941) or me (609-343-5670). We look forward to your participation and ideas.

## **APPENDIX E:**

### **FINAL EMPLOYMENT AND POPULATION PROJECTIONS BY MUNICIPALITY**

<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>							
<b>MUNICIPAL POPULATION PROJECTIONS</b>							
<b>CRBR, 2011</b>							
			<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
	<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Atlantic County</b>	224,327	252,552	13%	274,549	9%	341,915	25%
Absecon city	7,298	7,638	5%	8,411	10%	9,910	18%
Atlantic City city	37,986	40,517	7%	39,558	-2%	41,153	4%
Brigantine city	11,354	12,594	11%	9,450	-25%	9,085	-4%
Buena borough	4,441	3,873	-13%	4,603	19%	6,204	35%
Buena Vista township	7,655	7,436	-3%	7,570	2%	7,800	3%
Corbin City city	412	468	14%	492	5%	535	9%
Egg Harbor township	24,544	30,726	25%	43,323	41%	66,491	53%
Egg Harbor City city	4,583	4,545	-1%	4,243	-7%	4,351	3%
Estell Manor city	1,404	1,585	13%	1,735	9%	2,023	17%
Folsom borough	2,181	1,972	-10%	1,885	-4%	1,948	3%
Galloway township	23,330	31,209	34%	37,349	20%	50,968	36%
Hamilton township	16,012	20,499	28%	26,503	29%	41,011	55%
Hammonton town	12,208	12,604	3%	14,791	17%	19,490	32%
Linwood city	6,866	7,172	4%	7,092	-1%	7,409	4%
Longport borough	1,224	1,054	-14%	895	-15%	891	0%
Margate City city	8,431	8,193	-3%	6,354	-22%	6,164	-3%
Mullica township	5,896	5,912	0%	6,147	4%	6,535	6%
Northfield city	7,305	7,725	6%	8,624	12%	10,406	21%
Pleasantville city	16,027	19,012	19%	20,249	7%	22,525	11%
Port Republic city	992	1,037	5%	1,115	8%	1,261	13%
Somers Point city	11,216	11,614	4%	10,795	-7%	11,054	2%
Ventnor City city	11,005	12,910	17%	10,650	-18%	10,516	-1%
Weymouth township	1,957	2,257	15%	2,715	20%	3,740	38%
<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>							
<b>MUNICIPAL POPULATION PROJECTIONS</b>							
<b>CRBR, 2011</b>							
			<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
	<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Cape May County</b>	95,089	102,326	8%	97,265	-5%	103,083	6%
Avalon borough	1,809	2,143	18%	1,334	-38%	1,233	-8%
Cape May city	4,668	4,034	-14%	3,607	-11%	3,584	-1%
Cape May Point borough	248	241	-3%	291	21%	351	21%
Dennis township	5,574	6,492	16%	6,467	0%	6,594	2%
Lower township	20,820	22,945	10%	22,866	0%	23,317	2%
Middle township	14,771	16,405	11%	18,911	15%	23,419	24%
North Wildwood city	5,017	4,935	-2%	4,041	-18%	3,937	-3%
Ocean City city	15,512	15,378	-1%	11,701	-24%	11,228	-4%
Sea Isle City city	2,692	2,835	5%	2,114	-25%	2,020	-4%
Stone Harbor borough	1,025	1,128	10%	866	-23%	833	-4%
Upper township	10,681	12,115	13%	12,373	2%	13,732	11%
West Cape May borough	1,026	1,095	7%	1,024	-6%	1,028	0%
West Wildwood borough	453	448	-1%	603	35%	773	28%
Wildwood city	4,484	5,436	21%	5,325	-2%	5,407	2%
Wildwood Crest borough	3,631	3,980	10%	3,270	-18%	3,189	-2%
Woodbine borough	2,678	2,716	1%	2,472	-9%	2,466	0%

<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>							
<b>MUNICIPAL POPULATION PROJECTIONS</b>							
<b>CRBR, 2011</b>							
			<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
	<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Cumberland County</b>	138,053	146,438	<b>6%</b>	156,898	<b>7%</b>	186,178	<b>19%</b>
Bridgeton city	18,942	22,771	<b>20%</b>	25,349	<b>11%</b>	32,810	<b>29%</b>
Commercial township	5,026	5,259	<b>5%</b>	5,178	<b>-2%</b>	5,281	<b>2%</b>
Deerfield township	2,933	2,927	<b>0%</b>	3,119	<b>7%</b>	3,632	<b>16%</b>
Downe township	1,702	1,631	<b>-4%</b>	1,585	<b>-3%</b>	1,610	<b>2%</b>
Fairfield township	5,699	6,283	<b>10%</b>	6,295	<b>0%</b>	6,324	<b>0%</b>
Greenwich township	911	847	<b>-7%</b>	804	<b>-5%</b>	810	<b>1%</b>
Hopewell township	4,215	4,434	<b>5%</b>	4,571	<b>3%</b>	4,915	<b>8%</b>
Lawrence township	2,433	2,721	<b>12%</b>	3,290	<b>21%</b>	4,782	<b>45%</b>
Maurice River township	6,648	6,928	<b>4%</b>	7,976	<b>15%</b>	9,465	<b>19%</b>
Millville city	25,992	26,847	<b>3%</b>	28,400	<b>6%</b>	32,492	<b>14%</b>
Shiloh borough	408	534	<b>31%</b>	516	<b>-3%</b>	523	<b>1%</b>
Stow Creek township	1,437	1,429	<b>-1%</b>	1,431	<b>0%</b>	1,436	<b>0%</b>
Upper Deerfield township	6,927	7,556	<b>9%</b>	7,660	<b>1%</b>	7,914	<b>3%</b>
Vineland city	54,780	56,271	<b>3%</b>	60,724	<b>8%</b>	74,144	<b>22%</b>
<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>							
<b>MUNICIPAL POPULATION PROJECTIONS</b>							
<b>CRBR, 2011</b>							
			<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
	<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Salem County</b>	65,294	64,285	<b>-2%</b>	66,083	<b>3%</b>	79,078	<b>20%</b>
Alloway township	2,795	2,774	<b>-1%</b>	3,467	<b>25%</b>	4,987	<b>44%</b>
Carneys Point township	8,443	7,684	<b>-9%</b>	8,049	<b>5%</b>	9,957	<b>24%</b>
Elmer borough	1,571	1,384	<b>-12%</b>	1,395	<b>1%</b>	1,450	<b>4%</b>
Elsinboro township	1,170	1,092	<b>-7%</b>	1,036	<b>-5%</b>	1,035	<b>0%</b>
Lower Alloways Creek townshl	1,858	1,851	<b>0%</b>	1,770	<b>-4%</b>	1,786	<b>1%</b>
Mannington township	1,693	1,559	<b>-8%</b>	1,806	<b>16%</b>	2,277	<b>26%</b>
Oldmans township	1,683	1,798	<b>7%</b>	1,773	<b>-1%</b>	1,806	<b>2%</b>
Penns Grove borough	5,228	4,886	<b>-7%</b>	5,147	<b>5%</b>	6,077	<b>18%</b>
Pennsville township	13,794	13,194	<b>-4%</b>	13,409	<b>2%</b>	17,286	<b>29%</b>
Pilesgrove township	3,250	3,923	<b>21%</b>	4,016	<b>2%</b>	4,482	<b>12%</b>
Pittsgrove township	8,121	8,893	<b>10%</b>	9,393	<b>6%</b>	12,018	<b>28%</b>
Quinton township	2,511	2,786	<b>11%</b>	2,666	<b>-4%</b>	2,667	<b>0%</b>
Salem city	6,883	5,857	<b>-15%</b>	5,146	<b>-12%</b>	5,139	<b>0%</b>
Upper Pittsgrove township	3,140	3,468	<b>10%</b>	3,505	<b>1%</b>	3,813	<b>9%</b>
Woodstown borough	3,154	3,136	<b>-1%</b>	3,505	<b>12%</b>	4,333	<b>24%</b>

<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>								
<b>MUNICIPAL EMPLOYMENT PROJECTIONS</b>								
<b>CRBR, 2011</b>								
				<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
		<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010 (est.)</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Atlantic County</b>		135,692	144,875	7%	136,800	-6%	163,285	19%
Absecon city		2,913	3,555	22%	3,670	3%	4,626	26%
Atlantic City city		73,855	61,004	-17%	56,263	-8%	65,353	16%
Brigantine city		1,166	1,925	65%	1,592	-17%	1,816	14%
Buena borough		1,523	1,486	-2%	1,260	-15%	1,438	14%
Buena Vista township		1,225	1,223	0%	1,350	10%	1,702	26%
Corbin City city		34	542	1480%	150	-5%	150	0%
Egg Harbor City city		1,352	3,751	177%	3,125	-17%	3,566	14%
Egg Harbor township		7,756	15,409	99%	14,404	-7%	17,499	21%
Estell Manor city		41	266	549%	239	-10%	272	14%
Folsom borough		728	906	25%	872	-4%	1,100	26%
Galloway township		5,793	7,672	32%	8,901	16%	11,221	26%
Hamilton township		8,378	11,379	36%	10,554	-7%	12,822	21%
Hammonton town		8,144	8,975	10%	8,838	-2%	11,142	26%
Linwood city		2,723	2,919	7%	2,803	-4%	3,199	14%
Longport borough		173	183	6%	160	-13%	182	14%
Margate City city		1,361	1,691	24%	1,680	-1%	2,118	26%
Mullica township		457	642	40%	615	-4%	702	14%
Northfield city		3,494	5,161	48%	4,077	-21%	4,652	14%
Pleasantville city		7,755	7,618	-2%	7,720	1%	9,732	26%
Port Republic city		86	90	5%	86	-4%	99	14%
Somers Point city		5,090	6,360	25%	6,137	-4%	7,699	25%
Ventnor City city		1,570	1,891	20%	1,733	-8%	1,978	14%
Weymouth township		74	228	207%	180	-21%	205	14%
<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>								
<b>MUNICIPAL EMPLOYMENT PROJECTIONS</b>								
<b>CRBR, 2011</b>								
				<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
		<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010 (est.)</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Cape May County</b>		38,833	42,733	10%	41,500	-3%	50,750	22%
Avalon borough		1,482	1,371	-7%	1,333	-3%	1,403	5%
Cape May city		4,383	4,905	12%	5,115	4%	7,217	41%
Cape May Point borough		114	230	102%	163	-29%	172	5%
Dennis township		1,307	2,085	60%	1,884	-10%	1,983	5%
Lower township		2,716	3,266	20%	3,012	-8%	3,516	17%
Middle township		8,797	10,602	21%	10,741	1%	15,155	41%
North Wildwood city		1,854	1,612	-13%	1,307	-19%	1,376	5%
Ocean City city		5,346	6,090	14%	5,717	-6%	6,018	5%
Sea Isle City city		1,115	1,304	17%	1,190	-9%	1,253	5%
Stone Harbor borough		1,180	1,074	-9%	924	-14%	973	5%
Upper township		2,677	3,656	37%	2,970	-19%	3,467	17%
West Cape May borough		123	298	141%	163	-45%	172	5%
West Wildwood borough		8	48	495%	56	17%	79	41%
Wildwood city		4,660	3,844	-18%	3,589	-7%	3,778	5%
Wildwood Crest borough		2,473	1,737	-30%	1,361	-22%	1,432	5%
Woodbine borough		599	611	2%	1,974	223%	2,785	41%

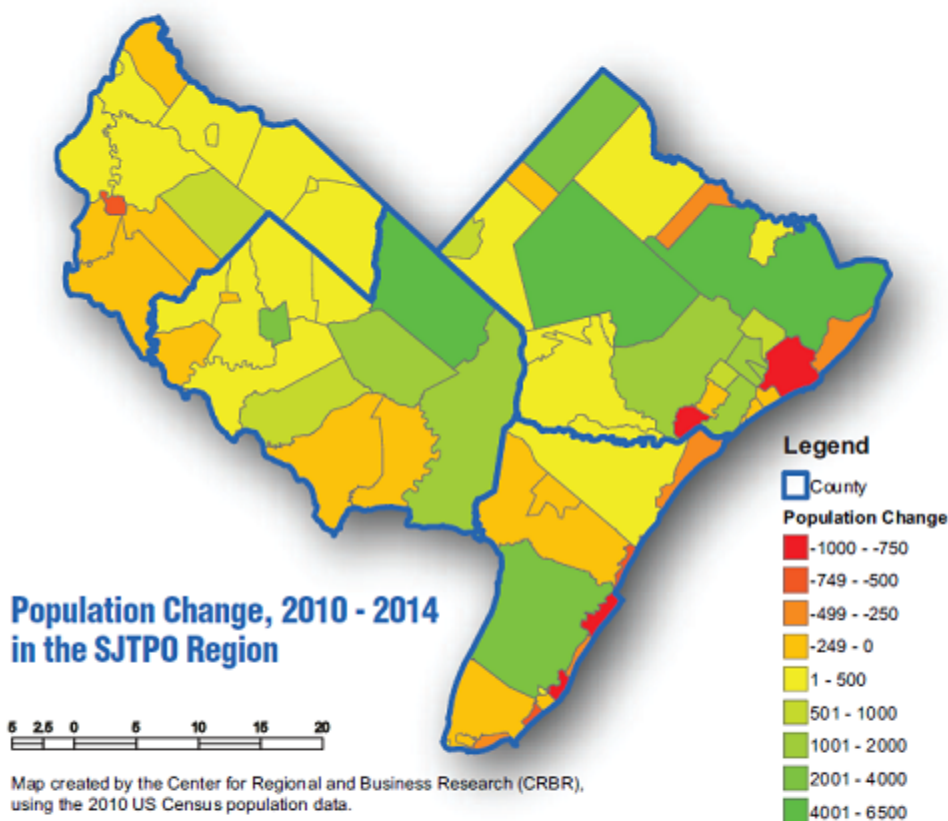
<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>								
<b>MUNICIPAL EMPLOYMENT PROJECTIONS</b>								
<b>CRBR, 2011</b>								
				<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
		<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010 (est.)</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Cumberland County</b>		59,600	60,442	1%	59,330	-2%	71,055	20%
Bridgeton city		11,694	10,260	-12%	10,235	0%	12,483	22%
Commercial township		360	547	52%	390	-29%	442	14%
Deerfield township		931	733	-21%	923	26%	1,143	24%
Downe township		53	375	604%	455	22%	564	24%
Fairfield township		764	1,617	112%	1,021	-37%	1,159	14%
Greenwich township		47	95	102%	60	-37%	68	14%
Hopewell township		264	166	-37%	105	-37%	119	14%
Lawrence township		669	1,088	63%	687	-37%	780	14%
Maurice River township		266	469	76%	2,544	442%	3,152	24%
Millville city		12,652	11,595	-8%	10,354	-11%	11,757	14%
Shiloh borough		48	175	262%	88	-50%	100	14%
Stow Creek township		51	516	915%	325	-37%	370	14%
Upper Deerfield township		1,537	2,050	33%	1,898	-7%	2,156	14%
Vineland city		30,263	30,755	2%	30,245	-2%	36,878	22%
<b>SJTPO 2040 DEMOGRAPHIC FORECAST</b>								
<b>MUNICIPAL EMPLOYMENT PROJECTIONS</b>								
<b>CRBR, 2011</b>								
				<b>Growth %</b>		<b>Growth %</b>		<b>Growth %</b>
		<b>1990</b>	<b>2000</b>	<b>1990-2000</b>	<b>2010 (est.)</b>	<b>2000-2010</b>	<b>2040</b>	<b>2010-2040</b>
<b>Salem County</b>		23,998	22,704	-5%	22,152	-2%	30,052	36%
Alloway township		318	646	103%	524	-19%	659	26%
Carneys Point township		1,487	2,274	53%	3,022	33%	4,562	51%
Elmer borough		1,777	1,593	-10%	1,594	0%	2,005	26%
Elsinboro township		67	106	59%	152	44%	226	49%
Lower Alloways Creek township		2,416	679	-72%	978	44%	1,454	49%
Mannington township		1,575	992	-37%	1,428	44%	2,124	49%
Oldmans township		996	726	-27%	525	-28%	660	26%
Penns Grove borough		1,200	1,138	-5%	1,119	-2%	1,407	26%
Pennsville township		6,873	4,121	-40%	3,526	-14%	4,497	28%
Pilesgrove township		330	1,042	216%	1,500	44%	2,231	49%
Pittsgrove township		800	3,178	297%	1,685	-47%	2,119	26%
Quinton township		137	150	9%	291	95%	433	49%
Salem city		3,919	3,329	-15%	3,164	-5%	3,979	26%
Upper Pittsgrove township		592	967	63%	688	-29%	865	26%
Woodstown borough		1,511	1,765	17%	1,886	7%	2,804	49%



**APPENDIX F:**  
**BROCHURES**



## South Jersey Transportation Planning Organization 2040 Demographic Forecast



The 2040 Demographic Forecast represents an update to a forecast performed five years earlier. While the forecast period is lengthy – 30 years – transportation planning requires a long-term view of the growth patterns to occur in the region in order to invest public funds most efficiently. The forecasts provided in this update serve as input to SJTPO Regional Transportation Plan, South Jersey Travel Demand Model, and the Environmental Justice Analysis that are used for regional transportation planning in the four-county region of Atlantic, Cape May, Cumberland and Salem.

Due to the large volume of both historical and forecast data, this report presents only a small fraction of the project's required information. The tables and graphs in this report are the broadest set of information that would most likely interest the majority of readers. For the complete project report, visit the SJTPO's website at <http://sjtpo.org/>.



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## FOUR COUNTY OVERVIEW

The overall growth of the SJTPO region is reported in the table below. The regional population growth is projected to be 6.5% per decade for the 2010-2040 period. Compared to the 8.2% growth experienced in the 1990-2000 decade, this represents a slowing of the most recent historical trend. The 2000-2010 decade slowed to 5.2%, influenced heavily by the stagnation of the post-2006 recessionary years.

At the county level, this represents a slower growth trend than the last 20 years for Atlantic County as casino development and retirement homes moderate growth patterns. Cape May County is expected to reverse its declining population very slowly with a 2% 10-year average. Cumberland County continues to grow at the trend of the past 20 years. However, it should be noted that growth in the middle part of the last decade was uncharacteristically high, reinforcing the projection for continued growth. Finally, Salem County is expected to continue to accelerate its growth to 6.6% per decade. The potential for the redevelopment of Pennsville and Salem City, the possibility of expanded employment due to new nuclear power plants, and the access provided by both Route 295 and the NJ Turnpike put the county in the path of development in the next two or three growth cycles to occur over the forecast period.

The employment projections show an acceleration of trends as the region continues to present inexpensive land and an improving infrastructure to potential employees. With access to major highways, rail and port facilities, the region's employment is expected to grow by 7.1%. While Cape May at 7.4% per decade and Salem at 11.9% have the highest growth rates, these counties also have fairly small bases from which to grow. The majority of jobs are still expected to come from Atlantic and Cumberland counties.

	1990	2000	1990-2000 Growth %	2010	2000-2010 Growth %	2040	2010-2040 Avg. 10-Yr. Growth %
<b>EMPLOYMENT PROJECTIONS</b>							
<b>NON-FARM SJTPO REGION</b>	<b>258,123</b>	<b>270,754</b>	<b>4.9%</b>	<b>259,782</b>	<b>-4.1%</b>	<b>315,141</b>	<b>7.1%</b>
Atlantic County	135,692	144,875	6.8%	136,800	-5.6%	163,285	6.5%
Cape May County	38,833	42,733	10.0%	41,500	-2.9%	50,750	7.4%
Cumberland County	59,600	60,442	1.4%	59,330	-1.8%	71,055	6.6%
Salem County	23,998	22,704	-5.4%	22,152	-2.4%	30,052	11.9%
<b>POPULATION PROJECTIONS</b>							
<b>SJTPO REGION</b>	<b>522,763</b>	<b>565,601</b>	<b>8.2%</b>	<b>594,795</b>	<b>5.2%</b>	<b>710,254</b>	<b>6.5%</b>
Atlantic County	224,327	252,552	12.6%	274,594	8.7%	341,915	8.2%
Cape May County	95,089	102,326	7.6%	97,265	-4.9%	103,083	2.0%
Cumberland County	138,053	146,438	6.1%	156,898	7.1%	186,178	6.2%
Salem County	65,294	64,285	-1.5%	66,083	2.8%	79,078	6.6%

South Jersey Transportation Planning  
Organization

# Regional Transportation Plan 2040

## *Technical Appendix #2: Public Involvement*

SJTPO

July 2012

Version: July 16, 2012

## **Appendix 2: Table of Contents**

1. Public Involvement: Kick-Off Activities Report, August 2011
2. 2040 RTP Public Meeting, 5/22/12—Meeting Summary
3. Comments received during public comment period, May 17-June 15, 2012.



# Public Involvement: Kick-Off Activities

August 2011



## South Jersey Transportation Planning Organization

821 S. Brewster Road, Unit B6

Vineland, New Jersey 08361

Tel: (856) 794-1941 | Fax: (856) 794-2549 | Web: [www.sjtpo.org](http://www.sjtpo.org)

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# Public Involvement: Kick-Off

## Overview

Per the objectives for public involvement as stated in the SJTPO Public Involvement Plan (PIP), the SJTPO is seeking input from the public to guide the SJTPO's planning efforts throughout the planning process. This is especially important in developing the Regional Transportation Plan, which acts as the SJTPO's core document and serves as the basis of future planning decisions, per federal guidance.

The process to construct the Regional Transportation Plan is a process that will take over a year to complete and will involve a myriad of different processes that come together for this major document. This document lays out the initial process to gather input from the public before beginning the Plan creation.

This process included:

- Training staff on how to gather input effectively;
- Orchestrating a meeting format to educate and gather meaningful input;
- Reaching out to impacted groups;
- Reaching the general public in a variety of ways;
- Holding meetings in accessible locations and times;
- Incorporating visualization;
- Forming tangible ways to gather and evaluate the input received;
- Giving the public an opportunity to comment on the effectiveness of the outreach process; and
- Reporting our findings back to the public as a measure of accountability.



## Public Involvement Training

With a need for public involvement and based on federal guidance, SJTPO saw a need to train a member of the staff on public involvement methodologies, to learn about accepted methodologies and to vet internal ideas with experts in the field. The SJTPO sought training through the National Transit (NTI) Institute via a three-day training session in Cleveland, Ohio in April 2011. This session, which brought together many planning professionals from across the country, was led by experts in public outreach and mediation. This session was invaluable in forming the sessions as well as seasoning the upcoming public involvement process.

## Meeting Format

Based on ideas vetted internally at SJTPO as well as during the above mentioned training, SJTPO staff chose a simple format that focused first on providing a basic background of the SJTPO and our planning process. The meeting then focused on collecting the information they know about their transportation system, and informing them how that information would help guide us in our process in the upcoming months.

The meetings included three parts: 1.) Introduce the MPO process, the SJTPO, and how this outreach effort fit into the process; 2.) Collect the broad issues that people most think affect them in using the transportation system, and discuss them as a group and rank them; and 3.) Provide maps and allow members of the public to discuss and draw site-specific problems and issues they noticed in the region.

*The preparation of this report has been funded in part by the U.S. Department of Transportation, Federal Transit Administration and Federal Highway Administration. This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or its use thereof.*



## Reaching Out to New Groups

Prior to the beginning of the RTP process, the SJTPO sent letters out to dozens of community organizations that represent a broad array of issues, interests, and community groups, to explain what the SJTPO does, introduce them to our process and invite them to join us as we were beginning this outreach effort. This resulted in numerous additions to the SJTPO mailing list, which is the most in-depth way we have to reach people with complete, timely information about our process, products, and activities.

## Reaching the General Public

As the Kick-Off meetings approached, the SJTPO used a variety of methods to inform and invite the public to these events. These methods included:

- Sending notices to the entire SJTPO mailing list, which includes hundreds of members of the public as well as representatives of numerous organizations;
- Posting several notices on the SJTPO Twitter account;
- Creating an informational webpage on the SJTPO website;
- Posting notices on local radio station community calendars;
- Asking SJTPO member counties to post notices on their online calendars and encouraging them to send notices to their respective mailing lists;
- Sending a press release to numerous local news media;
- Purchasing advertisements in the most widely circulated newspaper in each of the four counties;

**Share Your Thoughts About Transportation In South Jersey!**

The South Jersey Transportation Planning Organization (SJTPO) is holding a series of public input sessions in May and June to collect your thoughts on the transportation network in South Jersey before working to create a long-range plan through the year 2040.

For more information, visit us online at [www.sjtpo.org](http://www.sjtpo.org).

We will be holding 8 public input sessions in South Jersey, we hope you can join us and share your vision for the region!

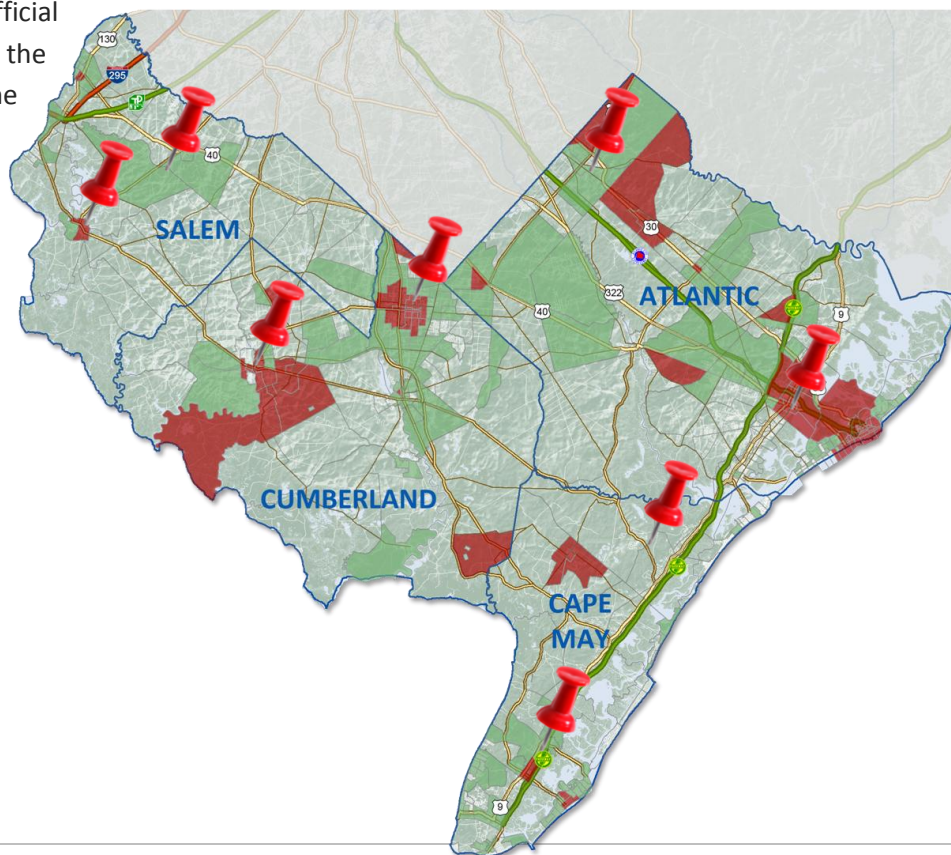
<p><b>Atlantic County</b></p> <p>1. <b>Tuesday, May 3, 2011, 6:00 - 8:00 pm</b> Atlantic County Library, Hammonton Branch 435 S Egg Harbor Road, Hammonton, NJ 08037</p> <p>2. <b>Thursday, May 12, 2011, 7:30 - 9:30 pm</b> Atlantic County Library, Pleasantville Branch 33 Martin L. King Jr. Avenue, Pleasantville, NJ 08033</p> <p><b>Cumberland County</b></p> <p>1. <b>Monday, May 16, 2011, 6:00 - 8:00 pm</b> David Sheppard House, Rutgers 31 W. Commerce Street (at Mayor Allen Drive), Bridgeton, NJ 08302</p> <p>2. <b>Thursday, May 19, 2011, 6:00 - 8:00 pm</b> Vineland City Hall, Caucus Room, 1st Floor 641 E. Wood Street, Vineland, NJ 08360</p>	<p><b>Cape May County</b></p> <p>1. <b>Monday, May 9, 2011, 6:00 - 8:00 pm</b> Cape May County Library, Upper Township Branch 2050 Route 63, Petersburg, NJ 08220</p> <p>2. <b>Wednesday, May 25, 2011, 6:00 - 8:00 pm</b> Cape May Co. Library, Cape May Courthouse Branch 30 Mechanic Street, Cape May Courthouse, NJ 08204</p> <p><b>Salem County</b></p> <p>1. <b>Tuesday, June 27, 2011, 6:00 - 8:00 pm</b> Viene Agricultural Building, Rutgers 51 Cherry Road (Off Route 45 near water tower, behind Day School), Woodstown, NJ 08098</p> <p>2. <b>Thursday, June 29, 2011, 6:00 - 8:00 pm</b> Old Courthouse Building 104 Market Street (At Broadway/Route 435), Salem, NJ 08059</p>
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## Hosting Accessible Meetings

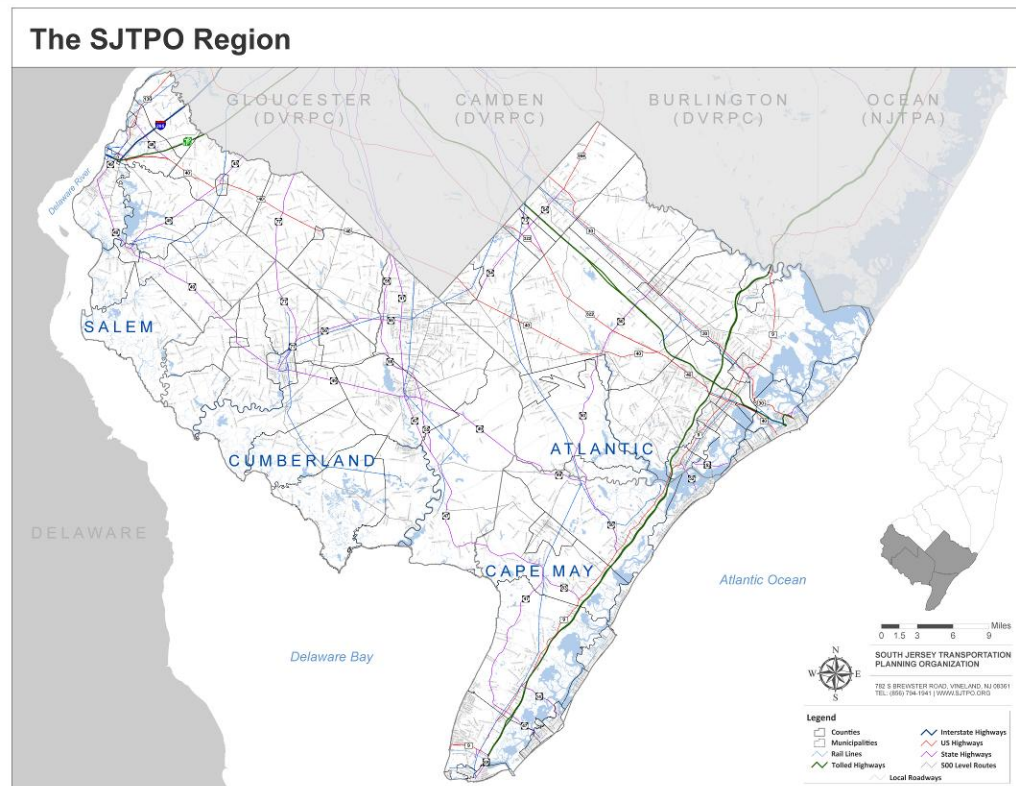
The SJTPO put forth a great deal of effort to ensure that these Kick-Off Meetings were as accessible as reasonably possible. Care was taken to ensure that each county had at least one meeting that was in an Environmental Justice (EJ) area and at least one that was in a walkable and/or transit accessible area. EJ refers to an area that represents an above average clustering of low-income or minority populations. These are groups that are identified in federal guidance as under-represented in the transportation planning process. For More information about Environmental Justice, see the [SJTPO Environmental Justice Report](#).

The following map shows the official Environmental Justice areas in the SJTPO region. The points on the map represent the location of the eight Kick-Off Meetings:



## Incorporating Visualization

The format of the Kick-Off Meetings was a very interactive one and incorporated visualization. Comments that focused primarily on transportation issues in the region were collected and discussed. Participants also had the opportunity to mark-up a map in any way that demonstrated the location of issues. Below is an example of a map that was used, which shows the infrastructure, jurisdictional boundaries, major physical features, and allowed opportunity for mark-up.





# Gathering and Evaluating Input

In the following pages are an unabridged collection of the comments received during these Kick-Off Meetings. The comments are as follows:

- Regional Transportation Issues (not site-specific), including issues such as (but not limited to) congestion, condition of the pavement, safety of driving habits, etc.
- Maps of the site-specific issues with the existing transportation system as well as ideas to make the system better.
- Comments received from the public, via questionnaire to determine their level of satisfaction with the Kick-Off sessions and comments on the sessions, including how to make future sessions better.

## Most Important Transportation Issues

## TOTAL FROM ALL MEETINGS

Based on the input from meeting attendees, the top transportation issues in the region are as follows (Table 1):

**TABLE 1: Summary of Top 10 Issues Indicated During Public Meetings (May-June 2011)**

Issues:	Rank:
Condition of Roadways (Pavement)	1
Transit Access	2
Bicycle and Pedestrian Access	3
Shore Access/Evacuation	4
Congestion	5
Safety of Driving Habits	6
Access to ALL Outside Job Centers (Philly, Camden Co., Gloucester Co., Wilmington, etc.)	7
Access to Parts of the Region via Roadway	8 Tie
Getting Info about Way-finding or Traffic Conditions	8 Tie
<i>Fully Implement "United We Ride" to eliminate duplication of service</i>	8 Tie

Table 1 is supported by the scoring detail that is displayed in Table 2 (below). Table 2, Col. 1 contains the issues that were most important to the attendees. Col. 2 displays the total points received by that issue at each of the eight meetings. For example, Congestion received 10 points at the Hammonton meeting. Col. 3 displays the total points received for each issue, from all eight meetings. For example, the total points received for the Congestion issue, after the entire series of eight meetings, was 31 points. The total points from Col. 3 are used to derive the rank that is displayed in Col. 4. This is the same rank displayed in Table 1.

Note: At the beginning of each meeting, SJTPO presented several issues as possible issues of concern. Meeting participants could use these issues, or add their own issues; which they did. *The issues that were added by a meeting participants are indicated in Blue.* Each participant ranked their top five issues. Each time that an issue was ranked as number one by any participant, that issue received 5 points. Points were also awarded to each issue, each time that any participant ranked that issue second (4 points), third (3 points), fourth (2 points), or fifth (1 point). The points that were awarded by the meeting participants are displayed in Table 2, Cols. 2 & Col. 3.

**TABLE 2: Full List of All Issues Indicated During Public Meetings (May-June 2011)**

(Col. 1) Issues:	(Col. 2) Total Points per Meeting:								(Col. 3) Total Points:	(Col. 4) Rank of Totals:
	1 Hammonton	2 Upper Twp	3 Pleasantville	4 Bridgeton	5 Vineland	6 CM Courthouse	7 Woodstown	8 Salem	All Eight Meetings	All Eight Meetings
<i>Issues in blue were added to the list by a meeting participant.</i>										
Congestion	10	8	3	0	5	5	0	0	31	5
Condition of Roadways (Pavement)	6	16	4	12	9	1	5	3	56	1
Shore Access/Evacuation	0	13	3	3	1	12	0	0	32	4
Bicycle and Pedestrian Access	8	10	4	5	0	8	1	1	37	3

(Col. 1) Issues:	(Col. 2) Total Points per Meeting:								(Col. 3) Total Points:	(Col. 4) Rank of Totals:
	1 Hammonton	2 Upper Twp	3 Pleasantville	4 Bridgeton	5 Vineland	6 CM Courthouse	7 Woodstown	8 Salem	All Eight Meetings	All Eight Meetings
<i>Issues in blue were added to the list by a meeting participant.</i>										
<b>Transit Access</b>	0	2	9	7	3	4	11	4	40	2
<b>Access to Parts of the Region via Roadway</b>	0	0	5	5	0	0	0	0	10	8
<b>Access to ALL Outside Job Centers (Philly, Camden Co., Gloucester Co, Wilmington, etc.)</b>	5	4	1	7	0	4	0	0	21	7
<b>Getting Info about Way-finding or Traffic Conditions</b>	0	0	0	2	3	1	4	0	10	8
<b>Safety of Driving Habits</b>	13	3	1	4	2	5	0	2	30	6
<i>Transit Schedules (Cater to Atlantic City, not Philadelphia)</i>	3								3	20
<i>Transit Stops (ACY/NextGEN)</i>	4								4	15
<i>Address Changes, Expansion in Service at ACY</i>	3								3	20
<i>Address Expansions at Smaller Regional Airports</i>	0								0	25
<i>Traffic Calming</i>	4								4	15
<i>Creating Pedestrian Environment in Downtown Areas (Some areas have good ped use but need facilities)</i>	4								4	15
<i>Standards are changing - How do We Pay for it</i>	0								0	25
<i>Bus/Rail Connections (Hammonton, 554 to train)</i>	0								0	25
<i>Need Traffic Control Devices (Crosswalks, etc)</i>		4							4	15
<i>Parkway Interchange (NJ 50/MP 20) Upgrade to Full Interchange</i>		0							0	25
<i>Access</i>		0							0	25
<i>Pedestrian Safety</i>		0							0	25
<i>Economic Development</i>			0						0	25
<i>Why are signals active on empty roadways after hours (gas cost, time wasted, etc.)</i>				0					0	25
<i>Context Sensitive Roadway Design (Scale)</i>				0					0	25
<i>Environment (Drainage, Runoff, Chemicals, etc)</i>					3				3	20
<i>Access - For a Variety of Means (Emergency Vehicles)</i>					0				0	25
<i>All Voices at the Table/Review Projects (Emergency Management, Environmental, etc)</i>					0				0	25
<i>US/NJ are too resistant to changes to highways to make them more pedestrian friendly (downtown streetscape)</i>					0				0	25
<i>Roadway design creates congestion/frustration/aggression</i>					0				0	25
					0				0	25

(Col. 1) Issues:	(Col. 2) Total Points per Meeting:								(Col. 3) Total Points:	(Col. 4) Rank of Totals:
	1 Hammon ton	2 Upper Tw p	3 Pleasantville	4 Bridgeton	5 Vineland	6 CM Courthouse	7 Woodstown	8 Salem	All Eight Meetings	All Eight Meetings
<i>Issues in blue were added to the list by a meeting participant.</i>										
<i>Too many access points/driveways - need to control access</i>					0				0	25
<i>Poor line of sight at intersections</i>					0				0	25
<i>Lack of sufficient street lighting</i>					0				0	25
<i>Don't detour heavy vehicles on to roadways that cannot handle it</i>					0				0	25
<i>Utility Upgrades/Improvements Should be integrated with roadway improvements (don't tear apart brand new roads)</i>					4				4	15
<i>Ramps on the Garden State Parkway are not long enough</i>					0				0	25
<i>Condition of Bridges</i>					8				8	11
<i>Coordination with Municipal Transportation Plans (the Counties do not necessarily do this)</i>					5				5	13
<i>Add Circulator Bus Route or Extend adjacent route to loop and connect to Courts using Breakwater Extension to Connect to US Route 9</i>					0				0	25
<i>More public information about GSP Interchanges</i>					0				0	25
<i>Add informational signs to remind drivers not to use cell phones or text while driving</i>					0				0	25
<i>Attend and present information at other groups' meetings</i>					0				0	25
<i>Add signage to direct visitors to Cape May Courthouse and inform them that it is a district and not a building</i>					0				0	25
<i>Parking (Ocean City)</i>					3				3	20
<i>Create a Salem County Department of Transportation to bring all transportation work together</i>					5				5	13
<i>Fully Implement "United We Ride" to eliminate duplication of service</i>					5	5			10	8
<i>Access to employment inside and outside of Salem County and for third shift</i>					7				7	12
<i>AccessLink currently requires users to come to their offices in Bridgeton to request their transportation services, which isn't accessible via other transit</i>					0				0	25
<i>Limited transportation options available for students to work after school and only official school busses are allowed to pick students up at schools even when there are no school busses</i>					2				2	24



TABLE 3: EVALUATION OF MEETINGS

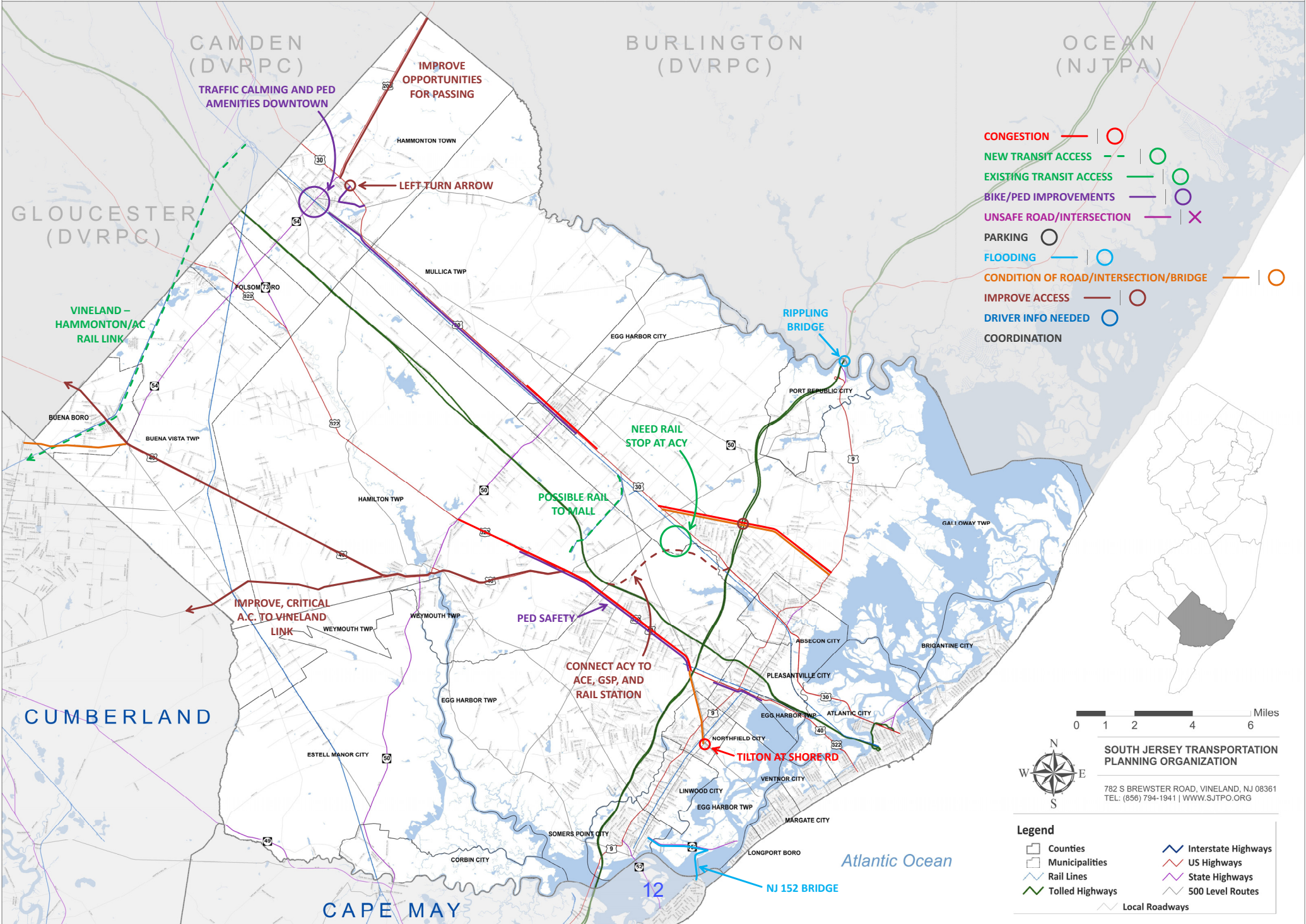
TOTAL FROM ALL MEETINGS

QUESTION	OPTION	POINTS	SCORE RECEIVED	TOTAL	AVERAGE
1. Please rank your satisfaction with this session today.					
	A. Very Satisfied	2	2 2 2 2 2 2 2	16	1.6 A. Very Satisfied
	B. Satisfied	1	1 1 1 1		
	C. Neutral	0			
	D. Dissatisfied	-1			
	E. Very Dissatisfied	-2			
2. Did you leave with a basic understanding of our process and how your comments would be incorporated into the process?					
	A. Yes, I did	1	1 1 1 1 1 1 1 1 1	9	0.9 A. Yes, I did
	B. Somewhat	0	0		
	C. Not at all	-1			
3. What, if anything would you change to make sessions like this better in the future?					
Maybe provide a list of projects that have been completed in the past, particularly in the area which the meetings have been held. Also, maybe provide a smaller version of the map where projects are planned.					
Get more participants from the community - police, students					
advertisement for session, press coverage					
Entice more people to come with interesting topics, refreshments, reach out to interested groups like traffic committee					
More public attendees - only 3 people attended					
4. How willing/interested would you be in attending SJTPO outreach events in the future?					
	A. Very Interested	2	2 2 2 2 2 2 2	16	1.6 A. Very Interested
	B. Interested	1	1 1 1 1		
	C. Unsure	0			
	D. Disinterested	-1			
	E. Very Disinterested	-2			
5. Do you feel like you had the opportunity to let SJTPO staff know what you wanted to tell them?					
	A. Yes, I did	1	1 1 1 1 1 1 1 1 1 1	10	1 A. Yes, I did
	B. Somewhat	0			
	C. Not at all	-1			
If “Somewhat” or “Not at all,” please tell us now, or use this space to share any other thoughts you have (you may use the back if you need more space):					
Session was very relaxed and I thought promoted a ease for participation and discussion. If local communities have a website, paper, community bulletin board, radio or tv station, it may be advantagous to advertise the meeting. Thanks					
Specific topics for meetings (i.e. parkway interchanges, texting and driving), help municipalities find grant funding					

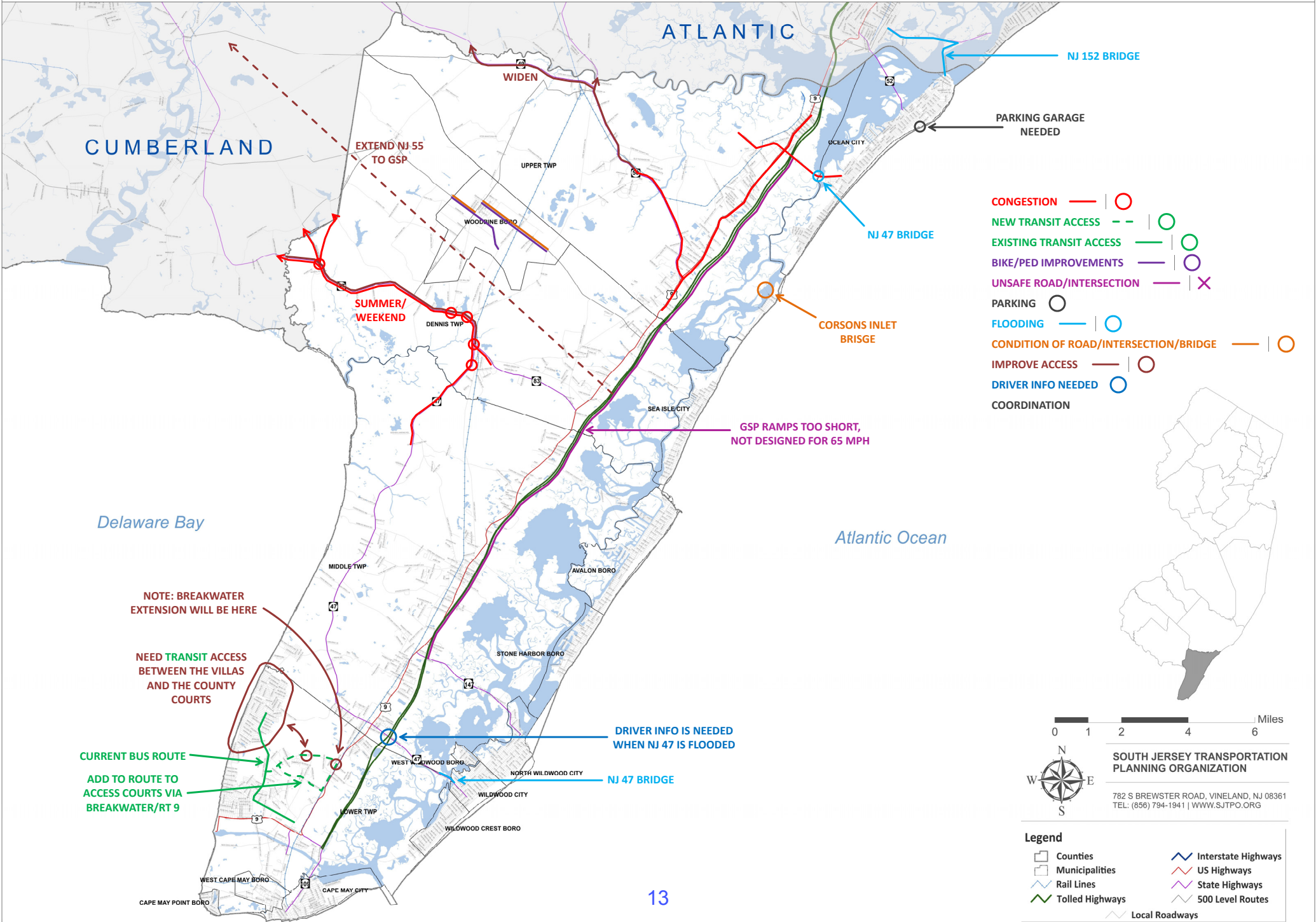
SJTPO staff asked participants to fill out a survey that was included with their handouts at the beginning of the meeting. The purpose of the survey was to give participants a chance to give feedback on the meetings. Table 3, above, shows each of the questions asked and the responses given. On average, participants said they were very satisfied with their session, that they left with a basic understanding of our process and how their comments would be incorporated into the process, that they were very interested in attending SJTPO events in the future, and that they were given the opportunity to let the SJTPO staff know what they wanted to tell us. Participants also offered some useful advice in their write-in comments. SJTPO staff attempted to incorporate them throughout the process, including where to additionally provide notice to the public.



# Atlantic County, New Jersey

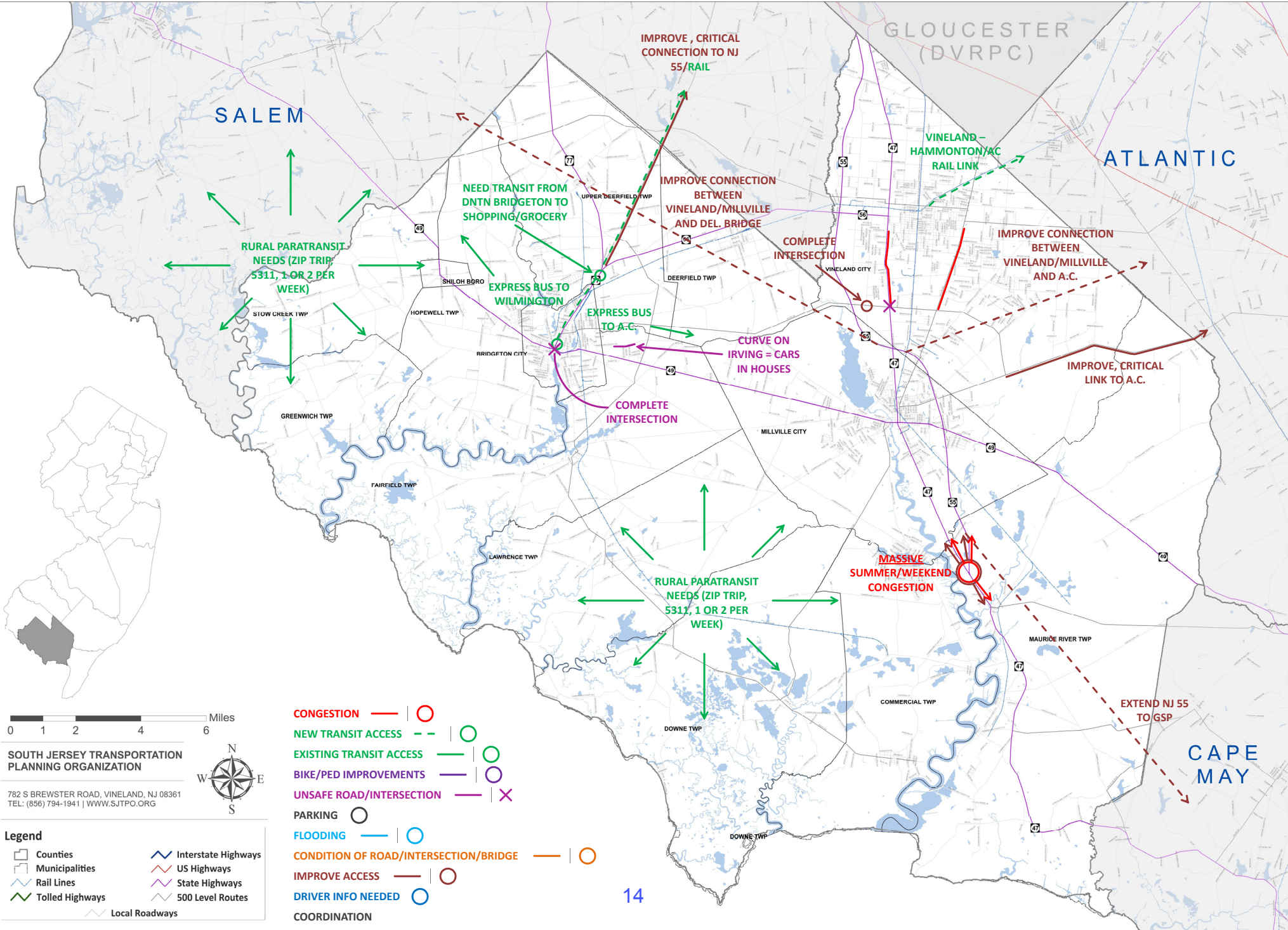


# Cape May County, New Jersey





# Cumberland County, New Jersey



# Salem County, New Jersey

- CONGESTION ——— | ○
- NEW TRANSIT ACCESS ——— | ○
- EXISTING TRANSIT ACCESS ——— | ○
- BIKE/PED IMPROVEMENTS ——— | ○
- UNSAFE ROAD/INTERSECTION ——— | X
- PARKING ○
- FLOODING ——— | ○
- CONDITION OF ROAD/INTERSECTION/BRIDGE ——— | ○
- IMPROVE ACCESS ——— | ○
- DRIVER INFO NEEDED ○
- COORDINATION



01246

Miles

SOUTH JERSEY TRANSPORTATION  
PLANNING ORGANIZATION

782 S BREWSTER ROAD, VINELAND, NJ 08361  
TEL: (856) 794-1941 | WWW.SJTPO.ORG

N  
W  
S  
E

- Legend
- Counties

Municipalities

Rail Lines

Tolled Highways

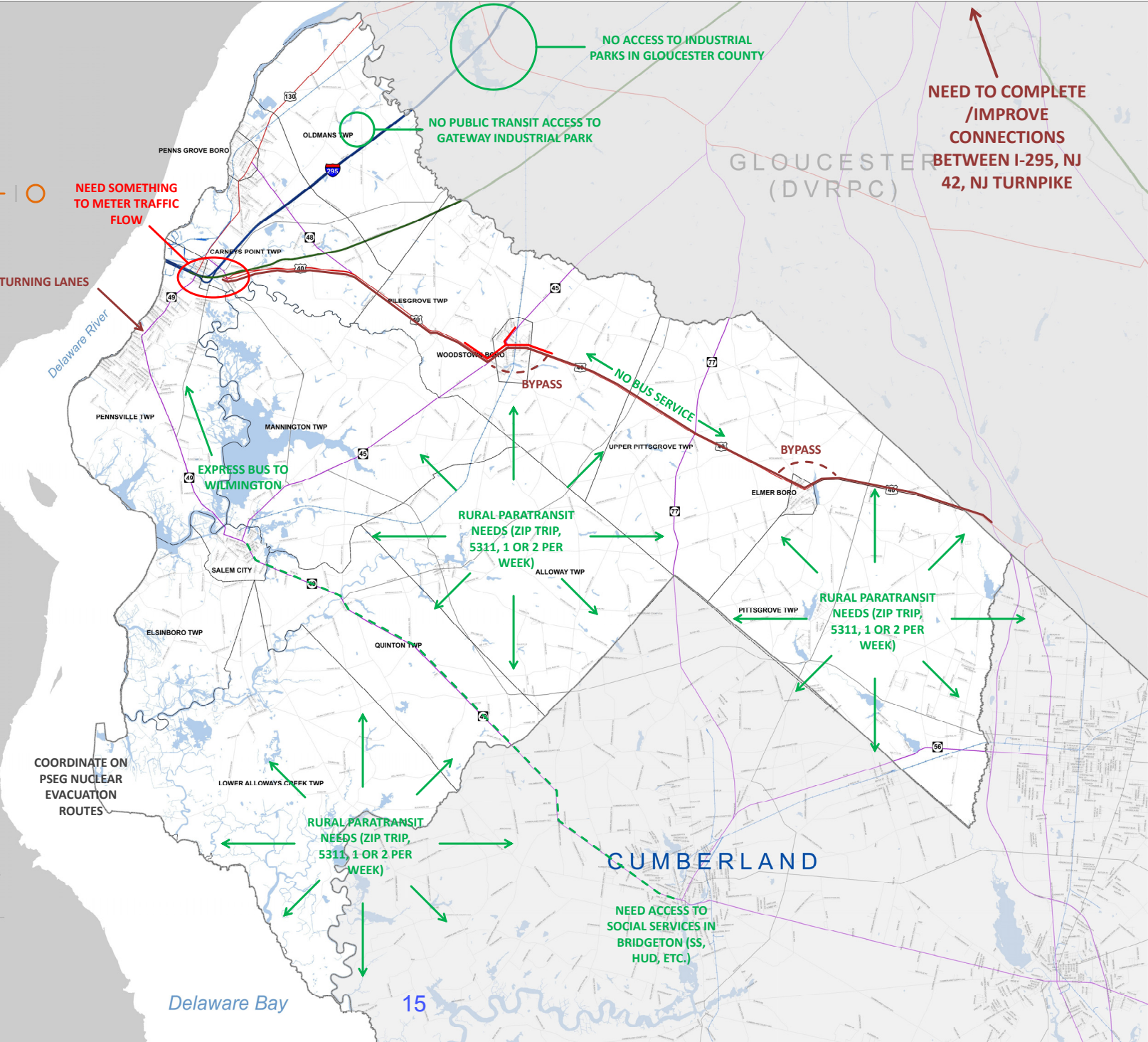
Local Roadways

Interstate Highways

US Highways

State Highways

500 Level Routes



## Being Accountable to the Public

This document describes our RTP kickoff preparation, the meeting format, and the comments received. Our RTP and other planning activities will incorporate a continuous public outreach effort. The valuable input received from all stakeholders will influence our plans and our planning methods.



## **2040 RTP Public Meeting, 5/22/12—Meeting Summary**

**Location: Cumberland County College, Luciano Conference Center, Vineland, NJ 10:30 AM-12:30 PM**

### **Attendees:**

1	Robert Brewer	Cumberland County Planning
2	Nancy Ridgway	Public
3	Susan Sauro	Government bus service (CATS)
4	Barbara Nedohon	Cumberland County Office on Aging
5	Macleod Carre	Cumberland County Office on Aging
6	Kristopher Matlowsky	Cumberland County Office on Aging
7	Sally Birdsall	Consultant
8	Tom Garrett	SJ Wheelmen
9	David Heller	SJTPO
10	Candice Dias	SJTPO
11	William Schiavi	SJTPO

### **(1). Powerpoint presentation from Bill Schiavi, summarizing the major elements of the Regional Transportation Plan.**

The entire region is covered by the Asset Management System (AMS). The Financial Plan assumes — that revenue, and expenditures will increase due to inflation. Most of the funding and expenditures will be used towards maintenance of existing system. A question was raised whether county, local funding is included. DH responded that these financial projections consisted of mostly just Federal and State sources. BS noted that we give money to counties, localities.

A question was raised about extending Rt. 347/47 to GSP. BS noted this was also important for evacuation. Tom Garrett noted that there are also environmental issues associated with this. BS noted that in our “Aspirational” scenario, we did not assume a new road, just more capacity, which is the cheaper and less impacting option.

BS presented and explained the “Locations of Interest” map. He noted that many of these locations have a high v/c and a higher share of accidents, as depicted by the Safety Management System. This will serve as a basis for projects in future TIPs. He showed results of scenarios. Based on the increase in VHT, we will be spending an increasing amount of time in our cars.

A question was raised about our projected population increase. If we take out immigration, that would suggest a decline in population. BS noted that our demographics do go down to the TAZ level. DH also noted that our demographic projections are based on national forecasts, such as Moody’s Economics, which take into account some of these more macro trends. DH gave a brief explanation of v/c ratio, noting that LOS E and F are the worst and generally indicate a v/c greater than 1.0.

## **(2). Comments/questions from audience:**

Sally Birdsall (SB): Noted that our presentation seemed to focus on just roads and bridges. For the “Aspirational” scenario, we should put more into vanpooling, carpooling, Human Service Transportation Plan. We need to include/discuss more about demand-responsive transit. We need maps showing not just current bike paths but future bike paths as well. She noted that we have a reputation as a bunch of “techno-nerds” that do great maps but don’t integrate things, and especially those things that [suggest a need to] change.

We need to embrace “intermodalism.” BS mentioned that all new roads follow a “Complete Streets” policy. SB noted that Canadians are known for their rural transportation network. SB noted that there is a great need especially for people living in [the more remote portions of] the county, such as Port Norris. There is a great need to address the transportation needs of the population as they get older and more fragile. We need to coordinate Human Service Transportation in Cumberland County, as there is already good demand-responsive transit.

The other attendees from the Cumberland County Office of Aging stressed the need for a coordinated Human Service Transportation Plan. They mentioned the “RouteMatch” software program (utilized by CATS) and the fact that they are not touching the tip of the iceberg as far as optimal utilization of the program. Atlantic County also has/expressed interest in this software.

They cited the increasing rise in the number of senior citizens, and the fact that they are not going to be driving forever. There needs to be expansion and better utilization of the existing service. Manpower, a public social services provider, mentioned the challenge of getting to where the jobs are. This is a mission of Workforce Development. Of course, this requires good roads.

Another Aging employee mentioned his nervousness about SAFETEA-LU reauthorization being debated in Congress. Specifically, they were concerned about FTA 5307 monies, which are tied to SAFETEA-LU. He was especially concerned about the results of 2010 Census [that show a decline in population in Cumberland County], that would lead to the Feds pulling funding from Cumberland County and giving to Philadelphia. They are also funded by FTA 5311 monies. They also have to carry people to places outside the county, such as Salem Co. Hours of the current service are 8-4, with special trips on weekends. The overall consensus is that the system is not being optimally utilized, and the route is set before knowing the actual time of the appoint.

He noted that the elderly population (as a proportion of the entire population), is dropping in Cumberland County, mostly due to the increase in the Hispanic population, particularly in the school-age children, and 18-24 age cohorts. Another attendee also noted that increasingly, seniors can’t afford to live in South Jersey.

There will be a future meeting of the Human Services Coordination Plan on 5/31. BS mentioned that he would forward this information to our lead person in this area, Mike Reeves, who will also be at the meeting, along with the consultant, the Abrams-Cherwony Group. We need to make sure there is no

duplication between what the consultants are doing and the Cumberland County Department of Aging is doing.

Another point of contact is Ryan Feaster (sp), the Director of Social Services. They need to work together. They receive direct funding from SJTPO (JARC). Macleod Carre (MC) remarked that all the providers need a common insurance carrier, so that they can share drivers, share routes, and resources.

Tom Garrett (TG) mentioned the Landis Avenue Express and his previous request to install bike racks onto the CATS buses. To date, there are no bike racks on the CATS buses. (TG was mentioning specifically the lack of bike racks on the CATS buses, such as the Landis Ave. Express. Salem County vehicles do have accommodations for bicycles

TG also reiterated previous comments that our Plan was too focused on roads. Landis Avenue is not very bike-friendly, particularly around Walmart. He mentioned the State Bike Plan, which ranks roads based on “bikeability.” He noted that improvements could include things as “simple” as repainting the stripes, so that people have more of a shoulder on which to ride. He noted that NYC has done a good job with the bike lanes.

CD noted that in rural areas, drivers drive at much faster speeds; and as such, rural areas have much higher accident rates. In contrast, in cities, there is more alertness, and generally there is more control over drivers (via signage, traffic signals). TG noted that in Bucks County, there are a lot of cyclists, and it is very rural.

An attendee mentioned that the City of Vineland did not put in a bike lane because of liability concerns.

Nancy Ridgeway stated that bike and pedestrian improvements such as sidewalks should be tied together with the accessibility of wheelchairs.

Attendees noted that law enforcement needs to take a stronger role in ensuring the safety of bicyclists, but it is not a high priority. BS mentioned that SJTPO’s Traffic Safety Alliance is comprised of many law enforcement officers and police departments and may be a good resource in this effort. They are involved in many education and outreach efforts in the schools, especially those pertaining to teen drunk driving. However, attendees noted that education is not equal to enforcement.

MC noted that we are asking the wrong questions, and that law enforcement can be used to generate revenue. Bob Brewer (BB) noted that there are only three municipal police forces in the county (Vineland, Millville, Bridgeton), with the remaining jurisdictions served by the State Police. In some states, the county sheriffs enforce traffic laws. Because of low socioeconomic indicators, Cumberland County is generally at the bottom of the list.

Vineland/Cumberland County has a Traffic Advisory Council, formerly headed by Bill Garrison which may also help in confronting these challenges.

MC noted that we need to reach adults, and hit them in the pocketbook to instill action. He cited Norway, where one violator lost 1 months salary (\$275k) for a drunk driving infraction. CD also cited



more stringent licensing regulations. BS mentioned simulators which could aid in improving traffic safety.

In Table 1, page 5 in Technical Appendix #7—List of Projects, TG wanted to know if the safety scores that generated the “locations of need” included bicycle safety measures . [BS: This does include all crashes, in this case. Very detailed and varied analyses for crashes can be done.] In particular, he had a question on Chestnut Ave, from NJ 55 to NJ 47. There was some discussion on the 50 mph speed limit for Chestnut Avenue being too high. There was also some discussion on who actually sets the speed limit for the county roads. Bob Brewer noted that it is generally set by the county, for county roads, in accordance with State Standards. But portions of Chestnut are municipal, which is why Vineland headed the RSA in 2010.

## Comments received during public comment period, May 17-June 15, 2012

The full text of all comments received are included, below.

	Comment	Date received	SJTPO Response
1	<p><i>From William Ragozine, Executive Director, Cross County Connection Transportation Management Association (CCCTMA):</i></p> <p>I have reviewed the referenced plan and offer a couple of minor comments:</p> <ul style="list-style-type: none"> <li>a) First, the plan is well done and looks impressive. Nice job!</li> <li>b) On page 15, in reference to the mention of the BRT study, I believe that is being done by NJ Transit. I believe the rail portion is being done by NJT and DRPA.</li> <li>c) On page 19, thank you for the mention!</li> <li>d) Appendix #4, Transportation System Assessment, pages 17 and 18 - we are your county-based TMA. Our authorized service area includes all 7 southern counties. Your 4 and 3 in DVRPC's area. We do work on ridesharing, employer services, safe routes to school, united we ride, NJ Transit, bike plans, etc. The full complement of services. What we do additionally in Burlington and Camden counties is a result of member services because those counties and numerous townships are paid members.</li> </ul> <p>Hope that clarifies things.</p> <p>Thank you,</p> <p>Bill</p>	5/7/2012, via email	<p>b) After verification with NJTransit, the page has been updated to reflect that NJTransit is undertaking the BRT line exploration, while DRPA is doing the same for LRT line.</p> <p>d) The statement as it is written is correct. No county within the 4-county SJTPO region has its own TMA. The CCTMA does serve the SJTPO region via a contractual arrangement with NJ DOT, but it is based outside of the 4-county SJTPO region.</p>

	Comment	Date received	SJTPO Response
2	<p>From Louis Millan, PP, AICP, NJ TRANSIT:</p> <p>Hi, Dave.</p> <p>Will Atlantic City Rail Line improvements be included? Perhaps the AC Line is in there, but I didn't see it. Let me know if you need anything from NJT. Thanks.</p> <p>Lou Millan</p>	5/10/2012, via email	The model does include the addition of a new rail station near the Atlantic City Airport. The station is placed halfway between the Egg Harbor and Absecon stations and a connector has been added between the rail station and the highway network near Route 30 and Pomona Road. Atlantic City Rail Line improvements have been added to the aspirational projects in the scenarios section.
3	<p><i>From Tom Garrett, Bicycle Advocate, South Jersey Wheelmen Bicycle Club:</i></p> <p>I am sending this remark form to leave comment after recent overview/proposal of "2040 Regional Transportation Plan" (2040 RTP) presented on May 22, 2012 at Cumberland County College (CCC), Vineland, NJ. I was appreciative of the invitation to attend, ability to observe this organization's mode of operation, and gain insight into challenges SJTPO faces in infrastructural planning/upkeep within proposed budget.</p> <p>Below are brief summaries of praises, reminders, and concerns I see in review of these plans. One of the visitors present summed these concerns well by her identification of the lack of "Complete Streets" acknowledgment/application in these plans. "Complete Street" planning involves the inclusion in road design for safe pedestrian, bicyclist, and automobile driver use of our public facilities. It appeared that the overview presented displayed a lack of "Complete Streets" and more to "Sustain, Restore, Maintain, and Preserve" existing roadways with center on automobile presence. If the plans involve "business as usual"</p>	6/11/2012, via email	SJTPO will work to place greater emphasis on Complete Streets in our future planning. Currently, Section 6 discusses Complete Streets in the context of travel demand management.

	Comment	Date received	SJTPO Response
	<p>productive road share insight could remain stagnated.</p> <p>I notice in several remarks made by SJTPO presenters were centered around these key components:</p> <ul style="list-style-type: none"> <li>-Air Quality</li> <li>-Congestion</li> <li>-Safety</li> <li>-Road Decay/upkeep</li> <li>-Cost.</li> </ul> <p>As a member of the South Jersey Wheelmen (SJW) Bicycle club, the League of American Bicyclists, and the New Jersey Bicycle Coalition I (and these organizations) can offer a "Simple Solution" to many of these points from a human powered transportation point of view. We know that pedestrians and bicyclists cause minimal decay of structural road surface but only about 1% of population actively participates in these active forms of transportation. Other components to active transportation incentives involve creating owning "Safe Routes to School", applying options to change national "Obesity Epidemic" outcomes, and create a greater community bonding. Each of these points will not be the focus here but need to be identified as being parts of the "Simple Solution". Identification of "Vehicular Bicyclists" (John Forester- "Effective Cycling" 1996) along with enforced/supported recognition of pedestrian road usage will improve Air Quality (decrease emissions), manage automobile Congestion, decrease Road Decay, and help keep Costs with-in budget with minimal redirects. Safety ("pink elephant" in the room) could be a new focal point of SJTPO, a win/win option as USA decreases our oil addiction and becomes more healthy.</p> <p>I will mention some general and specific points I brought to the meeting and feel</p>		<p>Your comment is noted. Safety has <i>always</i> been a focal point for SJTPO. SJTPO is a part of the Selection Committee for the statewide-administered Safe Routes to Schools grant recipients and we assist schools in the implementation of programs that are part of this grant. In addition to being a member of the Steering Committee for various Bicycle and Pedestrian Plans around the region, such as the Atlantic City Bicycle and Pedestrian Plan, we will look into creating a Bicycle and Pedestrian Plan as part of our next Regional Plan Update, which might help to focus more attention and resources on bicycle and pedestrian issues</p>

	Comment	Date received	SJTPO Response
	<p>need to be embraced for planning the next steps to safe and workable NJ transportation. There are questions remaining on SJTPO view of "High Safety Scores" Technical Appendix Number 7 - List of Projects. This was located in the above section on page 5. From a bicyclist's or pedestrians point of view, there are varied levels of perceived application of "High Safety Scores.</p> <p>Specific examples below are only partial to illustrate the unclear bias that was evident in report through eyes of a bicyclist. I feel safer navigating through these areas by bicycle than walking. A few I personally experience are as follow:</p> <p>On Vineland Route 552 from Rt 55 to Rt 555 there are both good (safe) and bad (dangerous) spots. Another example is traveling on Rt 77 from Rt 49 to Rt 540 through Bridgeton, NJ. Road congestion and door zones pose threats to bicyclists, pedestrians are on their own. Lastly, the example of NJ Rt 47 from Rt 49 to Rt 40 is an issue at spots, particularly Millville area, at Rt 55 connection, and parts of Vineland City. Though not mentioned Landis Ave from Rt 55 to Rt 47 is high volume concern with many collisions. These and others are technical events for skilled bicyclists, could be deterrents for to car drivers witnessing imposed road sharing survival safety techniques. This could slow their desire to ride their own bicycle to market or employment because "it is too dangerous". Work is needed in planning better application of "Complete Streets" in these and other examples.</p> <p>I want to thank you for the successful re-opening of route 52 Causeway from Somers Point, to Ocean City NJ. What a work of art! It rode nice, had great views, and non-comparable to the old route. Impressive and a true example that the "Complete Streets" concept is alive in NJ!!! I look forward to the re-opening of Peasly Point Bridge (but we at SJW are confused of how this will be done). Below</p>		<p>The safety scores were derived from Plan4Safety, a complex computer program that is used to calculate the safety scores for each of these locations. More detailed information on this program can be found at: <a href="http://cait.rutgers.edu/tsrc/plan4safety">http://cait.rutgers.edu/tsrc/plan4safety</a>. As stated above, SJTPO will strive to put more of an emphasis on "Complete Streets" in its future planning efforts.</p> <p>Your comments are duly noted. As noted above, SJTPO is exploring the possibility of doing a Bicycle and Pedestrian Plan which will incorporate many of these concepts and make recommendations on site-specific applications. We will also look to include more bicycle and pedestrian projects in our future planning efforts.</p> <p>Thank you again for your insightful comments. As stated above, we will do our best to promote more bicycle and pedestrian-friendly projects and policies throughout the region.</p>

	Comment	Date received	SJTPO Response
	<p>are concepts I shared with you at the meeting that could support "Complete Streets" in your community, towards a greener, healthier America.</p> <p>Here are some generalizations that are specific to safer roads for bicyclists and pedestrians, additions to "Complete Streets" concept. They need to be included in professional planning of projects, and evidenced in application.</p> <ul style="list-style-type: none"> <li>- Lowered Speed limits (speed kills, decreases fuel efficiency)</li> <li>- Apply "Sparrows" to each intersection indicating "Bicycles Belong"</li> <li>- During repainting, add white 4 inch lines parallel to existing earlier established lines that are 6" to 8" closer to road center. This adds a "calming affect" per NJ DOT meeting at CCC 4/12</li> <li>- Remove tire sucking storm water grates. I remember requesting this in 1979, can still point to examples currently in use.</li> <li>- Bike Lanes painted on current roads. Minimal cost, increase in bicycle application/use!</li> <li>- ETC (adding more bicycle racks on public transit, places to lock/secure your bicycle in center city, education of motorists and bicyclists of rules/laws of road sharing, support eco-tourism, etc.....)</li> </ul> <p>I thank you again for allowing me to include my feedback into your projects. It is obviously a grandiose endeavor. I compliment you - SJTPO on your efforts for that! I also am asking that you keep in mind that we all walk, some ride, and many may drive. A bicyclist gets from 622.0 to 1566.0 MPG (equivalent, green fuel your mileage may vary) . If we are able to re-direct the trend from obesity to fitness the bicycle could be one of the "Simple Solutions". To advocate change in infrastructural transportation planning, we can be part of a simple solution. I know I am!</p>		

	Comment	Date received	SJTPO Response
4	<p><i>From Kathie Hicks, City Planner, City of Vineland:</i></p> <ul style="list-style-type: none"> <li>a) Page 4 of Technical Appendix #4 – Rudy's Airport is no longer a public use airport, purchased by developer</li> <li>b) Page 4 of Technical Appendix #4 – Vineland-Downstown Airport isn't in Vineland/Cumberland</li> <li>c) Page 11 of Technical Appendix #4 – rail line heading NE out of Vineland is out of service. Supposedly, Southern RR failed to maintain - some track has been removed Issue – no Cumberland Co. freight movement to the east (ex. –sand)</li> <li>d) If it's not too late, can we add an Aspirational Project? Extension of Burns Ave. from Main Rd. (CR 555) to Lincoln Ave. (CR 655).</li> </ul>	6/11/2012, via email	<ul style="list-style-type: none"> <li>a) Plan has been updated based on this information.</li> <li>b) Since Vineland-Downstown serves the Vineland area and contains the Vineland name, the airport is still listed in the airports table, however, a note has been added to make clear that it is not located within Vineland municipal boundaries.</li> <li>c) NJDOT is responsible for the road surfaces at all grade crossings. Since the crossing at Oak Road was deemed unsuitable from a safety perspective, it was taken out temporarily until such time that NJDOT can restore it to an acceptable status. The crossing at Valley was also removed due to serious deterioration. They will be replaced if warranted. The line switches ownership, but at that point it is owned by DOT and operated by Southern Railroad. The entire route in question, however, is owned by Conrail. Although there is currently no service on the line, the corridor is intact.</li> <li>d) This project has been added to the</li> </ul>

	Comment	Date received	SJTPO Response
			<p>"Aspirational Project List," in the "Scenarios" section. However, it is not explicitly modeled, as the South Jersey Regional Model network includes predominately roads that are "regionally significant."</p> <p>Regionally significant roadways include major freeways, 500-level and some 600-level roads. Even though Burns Avenue may be part of the Federal Aid System, it is not part of the model network and as such, will likely have a minimal effect on future regional travel patterns, which the regional model is designed to forecast.</p>
5	<p><i>From Louis C. Joyce, PP/ AICP, Salem County:</i></p> <p>Section 3 pp 13 -14:</p> <p>a) include mention of the maritime freight capacity of the Port of Salem; also the comments on the rail capacity are inaccurate in that they lump all the shortline conditions together. The Salem County Shortline has received numerous upgrades and is in a constant program of repair and rehabilitation. Eleven of the eighteen miles of track have been rehabilitated. The shortline rail capacity in Cumberland County should be cited also.</p> <p>Section 4 pp 14 - 16:</p> <p>b) there needs to be a comment about expanding the AccessLink service where warranted and particularly in the rural areas; rural areas suffer from</p>	6/11/2012, via email	<p>a) We acknowledge that Salem County has been diligent about fixing and rehabilitating the rail. Many sections have been approved for freight service. Although the rail line to Salem is currently in varied condition, from poor to recently rehabilitated, the county has an active program to restore the entire line. The TIGER grant will fund the replacement of the Oldman's Creek Trestle and</p>



	Comment	Date received	SJTPO Response
	<p>a lack of adequate and equitable funding for human service transportation programs; an addition to the transit actions should be to "continue to push for full implementation of "United We Ride" within the various state and federal agencies to enable the integration of available transportation services;</p> <p>Section 5 pp16:</p> <p>c) can mention US Rt 40 as a major arterial and the primary east/west route through the region;</p> <p>Technical Appendix #4:</p> <p>d) discuss the deepening of the Salem River channel to accommodate additional maritime freight capacity;</p> <p>e) The comment about the existing rail on page 13 is incorrect, it is "not" unusable, it is functioning and the comment should recognize the rail is available at the Port;</p> <p>f) section 8 on page 18 does not recognize that Salem County Office on Aging provides transportation:</p> <p>g) the report can reference the fact that the State agencies funding the various transportation programs have not embraced or implemented the United We Ride directive;</p> <p>h) the reference to Rt 40 on pg 23 is incorrect, it is a two lane highway for most of its length.</p>		<p>some rehabilitation of the Salem line. Salem County continues to pursue DOT rail funds for rehabilitation of the rest of the line to the port of Salem. DOT and Salem County are working diligently (if slowly) to rehabilitate the entire line. However, this does not negate the fact that much of the track beyond Salem County is in poor condition and still needs extensive rehabilitation to be brought up to an acceptable level. Further, as the Regional Transportation Plan is intended to provide a regional perspective on the rail system, rather than focus on particular segments or jurisdictions, therefore this statement is an accurate assessment of the freight system for the 4-county SJTPO region. As cited in the Plan, much of the freight assessment is taken directly from the <i>Southern New Jersey Freight Transportation and Economic Development Assessment</i> report, published in 2010 and</p>

	Comment	Date received	SJTPO Response
			<p>prepared by NJDOT.</p> <p>b) With respect to the Human Service Transportation sections of the Regional Transportation Plan, any revisions that SJTPO makes should be based on the recommendations of the <i>SJTPO Human Service Plan Update</i> (December 2010). It should also be noted that AccessLink's <i>pick-up and drop-off points are limited to no more than ¼ of a mile from the regular bus routes</i>. However, to address these concerns, text from the 2010 <i>Human Service Plan Update</i> has been added to the Technical Appendix, Section 8, under the section heading, <i>Salem County</i>. Furthermore, Salem County's comments and concerns are included here in this Appendix.</p> <p>c) Plan has been updated based on this information.</p> <p>d) The South Jersey Port Corporation (SJPC) is in discussions with the US Army Corps of Engineers to deepen the channel for freight expansion, particularly for</p>

	Comment	Date received	SJTPO Response
			<p>domestic waterborne freight. This project is referenced in the <i>Southern New Jersey Freight Transportation and Economic Development Assessment</i> report; which is referenced in the Plan.</p> <p>e) Per our response to 5(a), Salem County's efforts in rehabilitating and improving various segments of track within its county notwithstanding, from a regional perspective, much of the rail system is in poor condition.</p> <p>f) Salem County was not included since it does not, at present, serve all transit dependents; its service is limited to seniors, veterans and the disabled. However, the text has been altered to include Salem County's services, with the appropriate qualifications.</p> <p>g) The general response and recommended addition included under Comment (b) should at least partially address this comment, since it is recommending that some level of coordination occur between the County the two State</p>

	Comment	Date received	SJTPO Response
			<p>transportation services (AccessLink and Medicaid). Furthermore, Salem County's comments and concerns are included here in this Appendix.</p> <p>h) Plan has been updated based on this information.</p>

South Jersey Transportation Planning  
Organization

# Regional Transportation Plan 2040

## ***Technical Appendix #3: Air Quality Conformity Determination***

SJTPO

July 2012

Version: July 16, 2012



# **Transportation Conformity of the SJTPO Fiscal Years 2012-2021 Transportation Improvement Program and the 2040 Regional Transportation (Long Range) Plan Under All Current National Ambient Air Quality Standards**



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**DRAFT May 1, 2012**

# **Transportation Conformity of the SJTPO Fiscal Years 2012-2021 Transportation Improvement Program and the 2040 Regional Transportation (Long Range) Plan Under All Current National Ambient Air Quality Standards**

The South Jersey Transportation Planning Organization (SJTPO) is the Metropolitan Planning Organization (MPO) for the southern New Jersey region. Formed in mid-1993, SJTPO replaced three smaller, existing MPO's while incorporating other areas not previously served. Covering Atlantic, Cape May, Cumberland, and Salem counties, SJTPO works to provide a regional approach to solving transportation problems.

Transportation planning and decision-making for urbanized areas is carried out through MPO's. Traditionally, MPO's synchronize the planning actions of participating agencies in the region and provide a forum for decision-making among officials, operators, and the public.

The SJTPO coordinates the planning activities of participating agencies and provides a forum for cooperative decision-making among state and local officials, transit operators, and the general public. The SJTPO also adopts long-range plans to guide transportation investment decisions, and maintains the eligibility of its member agencies to receive federal transportation funds for planning, capital improvements, and operations.

In addition, the SJTPO has formed the South Jersey Traffic Safety Alliance (SJTSA). The Alliance's main objective is to assist all county and municipal agencies and organizations with problem assessment, development, implementation, and evaluation of educational programs, enforcement programs, and engineering projects for traffic and pedestrian safety.



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# 1 Overview/Background

This report documents the demonstration of transportation conformity of the SJTPO FY 2012-2021 Transportation Improvement Program (TIP) and the SJTPO 2040 Regional Transportation Plan (RTP, or the Plan).

This conformity demonstration is based on the conformity Final Rule, including 40 CFR Part 93 as revised, and is consistent with the joint Environmental Protection Agency (EPA), Federal Highway Administration, and Federal Transit Administration Regional Air Quality Consultation and Coordination process. Pollutants addressed include volatile organic compounds (VOCs) and oxides of nitrogen (NOx). Conformity findings must be based on established budgets (where appropriate) for VOCs and NOx for all applicable analysis years in the MPO region of the designated non-attainment area. These analyses also incorporate the most recent population and employment projections that were approved by the SJTPO Policy Board on March 26, 2012, as part of the Regional Transportation Plan Update, and other applicable latest planning assumptions.

The purpose of this analysis document is to comply with the Final Rule for the 8-hour Ozone National Ambient Air Quality Standards (NAAQS).

<sup>1</sup>On November 9, 2005 the Environmental Protection Agency (EPA) issued a final rule that will take the next steps to protect the American public from ground-level ozone pollution. This rule, often called the Phase 2 Ozone Rule, describes the actions states must take to reduce ground level ozone.

The *Final Rule* dictates that conformity findings within the SJTPO planning area, which is part of the *Philadelphia-Wilmington-Atlantic City Moderate Ozone Non-attainment Area* are under the 8-hour ozone national ambient air quality standards (NAAQS). Effective August 1, 2008 EPA has determined that the 2008 and 2009 8-hour ozone budgets, submitted by New Jersey as part of its State Implementation Plan,<sup>2</sup> “are adequate for transportation conformity purposes” and the SJTPO “must use the new 2008 and 2009 8-hour ozone budgets for future transportation conformity determinations”.

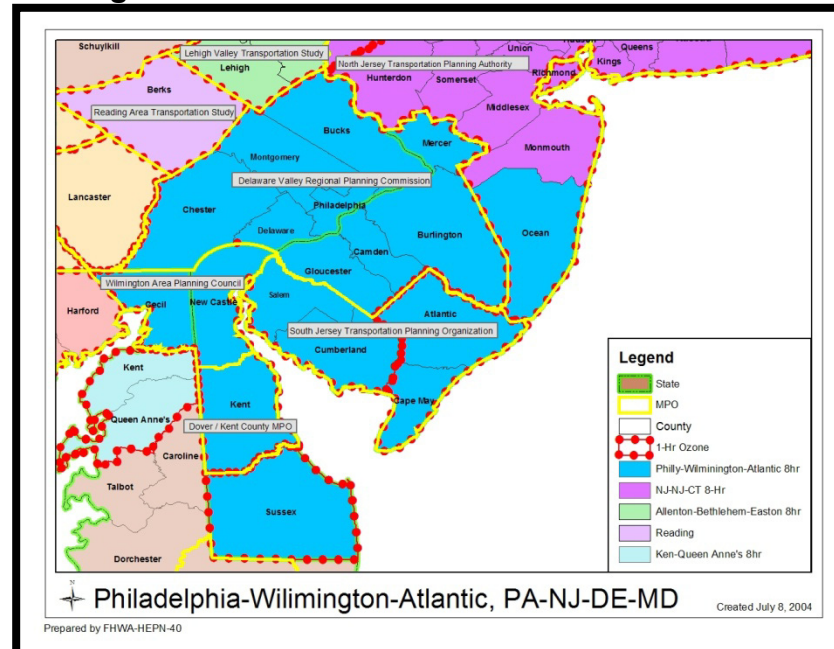
New Jersey actually did attain the 1997 8-hour ozone standard in 2010 as required. However, before an area can be designated as in attainment, it must submit a Maintenance Plan. Because of the pending more stringent ozone standard that is expected to put the area back into nonattainment, New Jersey is not planning to prepare a redesignation request and maintenance plan at this time. Note that SJTPO is responsible for demonstrating transportation conformity for its sub-area within the greater air quality control region (AQCR). Similarly DVRPC (Camden, Burlington, Gloucester, and Mercer Counties), NJTPA (Ocean County), and other MPO’s are tasked with demonstrating transportation conformity for their planning region sub-areas located within the designated non-attainment area.

<sup>1</sup>Excerpted from USEPA website - <http://www.epa.gov/ozonedesignations/documents/Nov05/factsheet.htm>

<sup>2</sup>Excerpted from USEPA website - <http://www.epa.gov/EPA-AIR/2008/July/Day-17/a16390.htm>

The 8-hour non-attainment air quality control region (AQCR) is detailed in Figure 1 below. For the four-county SJTPO planning area, the 2008 and 2009 VOCs and NO<sub>x</sub> budgets have been established using MOBILE6 in cooperation with the New Jersey State Department of Environmental Protection (NJDEP). These ozone precursor budgets are used for the analysis years of 2020, 2030, 2035, and 2040.

**Figure 1 – 8-Hour Ozone Non-Attainment Area**



A portion of the region, defined as Atlantic City, Atlantic County and Penns Grove, Salem County, is also part of a CO “not classified” maintenance area. It is part of a limited carbon monoxide maintenance plan and thus SJTPO no longer has to complete a regional emissions analysis for these areas for CO.

This document shows that all current conformity criteria established by USEPA are met. This report also describes the process followed to determine the transportation conformity of the TIP and update to the Regional Transportation Plan (“Plan”). Consistent with the requirements for non-attainment areas, SJTPO has demonstrated in this document that the TIP and Plan conform to the SIPs with respect to the respective motor vehicle emissions budgets in the corresponding implementation years.

## 2 Projects and Analysis Years

There are two categories of projects contained in the TIP and the Plan for the conformity demonstration: 1) regionally significant and non-exempt projects, and; 2) projects exempted from the conformity analysis. The Final Rule defines a regionally significant project as a non-exempt transportation project that is on a facility serving regional transportation needs and would normally be included in the modeling of a metropolitan area's transportation network. The emission analysis of transportation plans and programs must model all regionally significant and non-exempt projects.

The regional emissions analysis conducted to demonstrate 8-hour conformity of the TIP and the Plan includes all "regionally significant, non-exempt" projects on principal arterials and higher classifications – that is, those which can impact regional air quality. The project set includes all those in the Plan, those in the current TIP, and those which have been introduced in previous TIPs that are not yet completed. The regional emissions analysis performed for this conformity determination was actually run in July 2011. Even though that regional emissions analysis was based on the 2035 RTP, since there was nothing in the 2040 RTP that would affect the existing regional emissions analysis, per 40 CFR §93.122(g) of the Transportation Conformity Regulations, SJTPO is relying on this analysis to demonstrate conformity of the 2040 RTP with the SIP. Reliance on the existing regional emissions analysis was approved by the interagency consultation group at their teleconference on March 29, 2012.

For this iteration of conformity demonstration, the mobile source ozone emissions analysis years for VOCs and NO<sub>x</sub> are 2020, 2030 (an *interim* year selected to keep all analysis years less than ten years apart) ,and 2035 (the *horizon* year of the *SJTPO 2035 Long Range Transportation Plan*). VOCs and NO<sub>x</sub>, which are heat-related ozone precursors, are concerns during the summer months, and are estimated for a July weekday. To demonstrate conformity, projected emissions in all analysis years must not exceed the established budgets.

A complete list of TIP projects is contained in **Appendix 1**. All non-exempt projects that could be modeled, including non-Federal projects, will be covered in the current conformity determination. These projects are listed in **Appendix 1** and have a completion year associated with them under the "Scenario Year" column.

## 3 Methodology

Ozone (O<sub>3</sub>) is a colorless gas associated with smog or haze conditions. Ozone is not a direct emission, but a secondary pollutant formed when precursor emissions, volatile organic compounds (VOCs), also known as hydrocarbons (HC), and oxides of nitrogen/ Nitrates (NO<sub>x</sub>), react in the presence of sunlight. This analysis uses a series of computer models to forecast vehicle miles of travel, speeds, and finally emissions estimates for these precursors of ozone.

### 3.1 ANALYSIS SOFTWARE

A combination of computer programs centered on MOBILE6.2 and PPSUITE were used to assess air quality in the SJTPO region. MOBILE6.2 is a software package developed by the USEPA to calculate mobile source emissions. PPSUITE is a software package used to pre-format and post-format data to and from MOBILE6.2. It provides a linkage between MOBILE6.2 and the transportation model, the South Jersey Travel Demand Model (SJTDM). In this analysis emissions are calculated for two categories of pollutants: volatile organic compounds and oxides of nitrogen.

### 3.2 APPLICABLE TESTS AND BUDGETS

The SJTPO region has emission budgets for relevant pollutants for the 8-hour Standard, and as such, only budget tests are required to demonstrate conformity. As of August 1, 2008 EPA has determined that the 2008 and 2009 8-hour ozone budgets, submitted by New Jersey as part of its State Implementation Plan, are adequate and should be used for future transportation conformity determinations. Under the SIP Revision, 13.03 tons per day of VOC and 29.64 tons per day of NOx are the budget levels for the year 2009 and later for the SJTPO region. VOC and NOx budget levels corresponding to the analysis years of 2020, 2030 and 2035 are listed in Table 1. The values correspond to maximum allowable emissions generated for a July weekday, the prescribed analysis day/period for the VOC and NOx emission testing in the SJTPO region.

**Table 1 - Budgets for VOC and NOx (tons per day) for SJTPO Region**

<b>Budgets</b>	<b>2020 (tons)</b>	<b>2030 (tons)</b>	<b>2035 (tons)</b>
VOC	13.04	13.04	13.04
NOx	29.64	29.64	29.64

Budgets found adequate for conformity purposes by USEPA August 1, 2008

## 4 Other Planning Assumptions

The latest planning assumptions must be used in the conformity analysis. Note that there are no changes to the planning assumptions which were used for the most recently adopted conformity analysis of the TIP and the Plan. The travel demand modeling process utilizing the latest planning assumptions began on **May 16, 2011**.

Key elements utilized in this conformity assessment follow:

### 4.1 POPULATION & EMPLOYMENT

Population and employment forecasts expected to be endorsed by the SJTPO Policy Board at their September 2011 meeting (see footnote #1, page 4), were used to forecast future year traffic conditions in the SJTPO area. These demographic forecasts project

population and employment trends at the county and municipal level in five – year intervals to the year 2040. The forecasts were developed from Moody’s economic projections as well as 2010 Census data where available. There was also extensive outreach with the county planning departments as well as other public officials. The SJTPO Technical Advisory Committee was also involved at every step of this process. The SJTPO Policy Board formally approved the demographic projections for the 2040 Regional Transportation Plan at their March 26, 2012, Board Meeting. While there was a slight change in the allocation of employment data (between the September 2011 and March 2012 Board-approved versions), as this change was relatively inconsequential for a regional-scale emissions analysis, the Interagency Consultation Group determined at their March 29, 2012 teleconference that a new regional emissions analysis wasn’t warranted.

#### **4.2 TRAVEL & CONGESTION**

For all analysis years, VMT and VHT are calculated by the South Jersey Travel Demand Model. Base year VMT was adjusted based on 2007 data from NJDOT’s Highway Performance Monitoring System (HPMS) estimates, which were confirmed by NJDOT to be the latest estimates. Vehicle type mix comes from 2005 DMV registration data with heavy vehicle adjustments based on 2007 data. Diesel fraction data is from 2003. In addition, auto operating costs remain at 15 cents per mile in year 2000 dollars.

#### **4.3 TRANSIT OPERATION POLICY AND FARE CHANGES**

Transit ridership has continued to grow, which provides a favorable effect on emissions. Transit service assumptions include fare/toll increases over time - detailed assumptions for different facilities were included in network coding files. In general, fares and tolls will change in step with inflation. This will cover any anticipated NJ Transit fare increases.

#### **4.4 TRANSPORTATION CONTROL MEASURES (TCMs)**

Transportation Control Measures that were implemented in the region, as identified in previous SIPs, are included in the base network. The current SIP does not include any Transportation Control Measures. Therefore, neither the budgets nor the conformity analysis reflect any additional Transportation Control Measures.

### **5 Models and Inputs**

There are several requirements for travel demand models for severe ozone areas. They are:

- General Model Requirements
- Consistency with the Highway Performance Monitoring System (HPMS)
- Vehicle Miles Traveled (VMT) estimates
- Reasonable Methods to Estimate Off-Network VMT
- Capacity- and Volume-Sensitive Speed-and-Delay Estimates
- Consistency with SIP Emissions Modeling Assumptions

Vehicle age files have been updated, and PM 2.5 inputs have been updated but do not affect this analysis, since SJTPO is not required to conduct PM analysis.

The South Jersey Travel Demand Model (SJTDM) was used along with PPSUITE. This model was last validated in July 2006 to a base year of 2002. It has been accepted and was used to establish the current 2008 and 2009 and projected 8-hour ozone budgets. The latest emissions model for New Jersey, MOBILE6.2, was used for the conformity analysis. The 2005 vehicle age and distribution data were used in the analysis process.

## **6 Stakeholder Participation**

The stakeholder participation process is being and has been conducted according to the schedule depicted in Figure 3. This includes participation of the Transportation Conformity Interagency Consultation Group (TCICG or ICG) and the general public at-large.

### **6.1 INTERAGENCY CONSULTATION**

Requirements for interagency consultation were met through the first Transportation Conformity Interagency Consultation Group teleconference on March 29, 2012, and follow up conference call on [tbd].

If additional issues requiring consultation arose, consultation would be by conference call unless needs dictated an in-person meeting. When the proposed conformity determination documentation was completed, a summary document was distributed to all participating agencies for comment.

### **6.2 PUBLIC INVOLVEMENT PROCEDURE**

The proposed conformity determination for the 2040 Regional Transportation Plan had a 30-day comment period. The summary document was made available to outline how conformity requirements have been met. Any questions on technical backup were addressed upon request. The public meeting was held May 22, 2012 at the Cumberland County College in Vineland, New Jersey.

Figure 2 - SJTPO 8-Hour Conformity Schedule for 2040 Regional Transportation Plan

<b>SJTPO FY11 AQ Assistance - Conformity Schedule</b>	
<b>Date</b>	<b>Process</b>
4-Apr. 2011	Teleconference with Interagency Consultation Group and request concurrence of attendees on SJTPO's proposed schedule, latest planning assumptions, relevant budgets, required pollutant tests, latest emission model, analysis years, preliminary project lists, etc.
16-May 2011	Follow-up teleconference with Interagency Consultation Group to confirm latest planning assumptions and distribute project list. Start of travel demand model process.
28-Jul 2011	Draft Planning Assumptions document to SJTPO
29-Jul 2011	Provide Interagency Consultation Group with draft Conformity Determination. Request concurrence with findings using email and/or a conference call.
3-Aug 2011	Publish Public Notice for Public Hearing & Comment Period.
3 Aug – 2 Sept 2011	30-Day Public Review Period.
18-Aug 2011	Public Meeting
12-Sept 2011	TAC recommends Policy Board action on RTP and Conformity Determination.
26-Sept 2011	Policy Board action on TIP & Conformity Determination
27-Sept 2011	MPO TIP & Conformity Determination submitted to NJDOT
29-March 2012	Teleconference with Interagency Consultation Group to review TIP amendment and request concurrence of attendees on reliance of 2011 regional emissions analysis for 2040 RTP conformity determination.[
4 May-2012	Follow-up email with Interagency Consultation Group to discuss draft conformity determination report.
17 May-15 June 2012	30-Day Public Comment Period
22 May 2012	Public Meeting, 2040 RTP & Conformity Determination
9 July 2012	TAC recommends Policy Board action on RTP & Conformity Determination
23 July 2012	Policy Board action on 2040 RTP & Conformity Determination



## 7 Analysis Results

Demographic forecasts were input to the modeling process to generate future travel demand data. Network changes resulting from the addition of improvement projects were used to define the action scenarios based on the year the proposed improvement would likely be constructed. The combination of demographic changes and network changes were ran through the modeling process, and resulted in the overall estimates of VMT, VHT, and emissions generated in the SJTPO region. A summary of the population, employment, VMT, and VHT values generated in the SJTPO region is found in Table 1 below. The VMT and VHT data are summarized by analysis period, for summer, and are presented for comparative purposes.

**Table 1 - Regional Travel Summary for the SJTPO Region**

	2020	2030	2035	2040
<b>Population</b>	631,396	665,703	689,613	710,254
<b>Employment</b>	284,483	295,632	305,055	315,141
<b>VMT Summer</b>	24,547,300	25,539,650	26,846,950	27,487,660
<b>VHT Summer</b>	748,963	808,779	867,793	892,928
<b>VMT Winter</b>	13,124,950	13,687,920	14,471,810	14,805,050
<b>VHT Winter</b>	315,249	331,341	350,271	361,422

### 7.1 ACTION SCENARIOS

The conformity assessment depicts the results of the action scenarios model runs versus the budgets established for each emission level for the analysis years. To develop the action scenarios, the base year highway network, which is the highway system as it existed in the model in the year 2007, is used as the starting point. For each analysis year, the highway network is modified to include the projects to be analyzed, as identified in Appendix A. For the analysis year, the SJTDM is run with the appropriate future year demographic inputs and the modified, action scenario highway network assumed in place by the analysis year. The corresponding emissions generated are a result of both the future year demographic inputs and the new projects, or actions, added to the base network in the appropriate year(s). The emissions from these action scenarios are then compared to the corresponding analysis year emission budgets.

## 7.2 BUDGET TESTS

This analysis is based on the 8-hour Ozone emissions budgets (for 2009) found adequate by EPA effective as of August 1, 2008.<sup>3</sup> Budget tests were performed for VOC and NOx for the SJTPO region. The tests show whether improvement actions, or the action scenarios, keep emissions within budget. Results are determined by subtracting projected emissions from the budgeted amounts. The VOC and NOx budget tests passed for the all 8-hour ozone attainment analysis years, as seen in Tables 2 and 3 below.

**Table 2 - VOC Budget Test, SJTPO (tons per day)**

	2020	2030	2035	2040
<b>Budget</b>	13.04	13.04	13.04	13.04
<b>Action#</b>	5.68	5.35	5.62	5.74
<b>Budget-Action</b>	7.36	7.69	7.42	7.3
<b>Pass/Fail</b>	PASS	PASS	PASS	PASS

# Summer emission

**Table 3 - NOx Budget Test, SJTPO (tons per day)**

	2020	2030	2035	2040
<b>Budget</b>	29.64	29.64	29.64	29.64
<b>Action#</b>	6.69	4.31	4.39	4.51
<b>Budget-Action</b>	22.95	25.33	25.25	25.13
<b>Pass/Fail</b>	PASS	PASS	PASS	PASS

# Summer emission

## 7.3 MEETING THE CONFORMITY CRITERIA

Tables 2 and 3 demonstrate that the TIP and the Plan conform to the SIPs with respect to the established motor vehicle emissions budgets in the corresponding implementation years. The TIP and the Plan meet all requirements under the 8-hour ozone standard all analysis years tested.

<sup>3</sup>Excerpted from USEPA website - <http://www.epa.gov/EPA-AIR/2008/July/Day-17/a16390.htm>

In addition to this demonstration that the estimated regional emissions of VOCs and NOx do not exceed the respective budgets included in the SIPs established by NJDEP, SJTPO's transportation conformity results must also meet all the applicable criteria that are consistent with the requirements for non-attainment areas under the CAAA. Specifically, the transportation conformity determination must be shown:

- To be fiscally constrained (40 CFR 93.108);
- To be based on the latest planning assumptions (40 CFR 93.110);
- To be based on the latest emissions estimation model available (40 CFR 93.111);
- To include consultation procedures consistent with those described in the *Final Rule* (40 CFR 93.112);
- Not to interfere with the timely implementation of TCMs (40 CFR 93.113); and,
- To be consistent with the motor vehicle emissions budgets in the applicable implementation plans (40 CFR 93.118).

All identified conformity evaluation criteria in the Final Rule, and subsequent responses from SJTPO, are detailed in Figure 3.

**Figure 3 – Evaluation of the Conformity Determination Criteria**  
**SJTPO's Response**

<b>Corresponding 40 CFR Part 93 Section(s)</b>	<b>Evaluation Criteria</b>	<b>SJTPO's Response</b>
§93.106(a)	(1) Are the transportation plan horizon years correct?	Yes. The years <b>2020, 2030 and 2035</b> are the current <i>Plan</i> horizon years, appropriately include the attainment year that is in the time span, and are not more than 10 years apart.
§93.106(a) (2)(i)	Does the plan quantify and document the demographic and employment factors influencing transportation demand	Yes. The <i>2035 Regional Transportation Plan</i> , of which this TIP analysis will be a part, will become the current and conforming transportation plan, which will quantify and document demographic and employment factors influencing transportation demand.
§93.106(a) (2)(ii)	Is the highway and transit system adequately described in terms of regionally significant additions or modifications to the existing transportation network which the transportation plan envisions to be operational in horizon years?	Yes. The regionally significant additions and modifications to the network utilized in this conformity analysis are listed and described. Detailed information regarding each project can be found in the respective <i>TIP</i> and <i>Plan</i> documents.
§93.108	Are the transportation improvement program and the transportation plan fiscally constrained?	Yes. The <i>TIP</i> and the <i>Plan</i> are constrained to reasonably anticipate financial resources.

<b>Corresponding 40 CFR Part 93 Section(s)</b>	<b>Evaluation Criteria</b>	<b>SJTPO's Response</b>
§93.109(a)	Has the MPO demonstrated that all applicable criteria and procedures for conformity are complied and satisfied?	Yes. As part of the response, this table itemizing criteria and responses is presented.
§93.109(e)	Are all budget tests for VOCs, NOx, and CO satisfied as required by §93.118 and §93.119 for conformity determination?	Yes. As a moderate non-attainment area with existing 8-hour ozone <i>SIP</i> budgets, SJTPO performs budget tests to demonstrate the 8-hour ozone conformity of the <i>TIP</i> and the <i>Plan</i> . SJTPO is not required to perform CO testing at this time.
§93.109(f)	Are the conformity determinations based upon the latest planning assumptions?	Yes.
	(a) Is the conformity determination, with respect to all other applicable criteria in §93.111-§93.119, based upon the most recent planning assumptions in force at the time the conformity determination began?	(a) Yes. This conformity determination utilizes the most recent planning assumptions as of <b>May 16, 2011</b> , the start date of the travel demand modeling process which in effect signaled the start of the conformity determination process.
§93.110	(b) Are the assumptions derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other designated agency? Is the conformity determination based upon the latest assumptions about current and future background concentrations?	(b) Yes. This conformity determination utilizes the most recent demographic and employment data adopted by the SJTPO Policy Board in September 2011 and shown in this conformity determination document. Also, vehicle registration data from 2007 are used. The assumptions are derived from the most recent information available to SJTPO.
	(c) Are any changes in the transit operating policies (including fares and service levels) and assumed transit ridership discussed in the determination?	(c) Yes. Applicable transit operating policies and transit ridership are addressed in conformity.
	(d) The conformity determination must include reasonable assumptions about transit service	(d) Transit service and increases in fares, etc are addressed in this conformity demonstration. Also included are planned toll increases on DRBA facilities and the New Jersey

Corresponding 40 CFR Part 93	Evaluation Criteria	SJTPO's Response
Section(s) §93.110 (cont)	and increases in transit fares and road and bridge tolls over time.	Turnpike.
	(e) The conformity determination must use the latest existing information regarding the effectiveness of the transportation control measures (TCMs) and other implementation plan measures that have already been implemented.	(e) Currently, there are no adopted TCMs in the corresponding SIPs.
	(f) Key assumptions shall be specified and included in the draft documents and supporting materials used for the interagency and public consultation required by §93.105.	(f) Key assumptions are specified and other supporting documents are included in this conformity determination document, which is available to the public and TCICG.
§93.111	Is the conformity determination based upon the latest emissions model?	Yes. The transportation conformity determination for the TIP and the Plan is based on MOBILE 6.2.
§93.112	Did the MPO make the conformity determination according to the consultation procedures of the <i>Final Rule</i> or the state's conformity SIP?	Yes. Two Interagency Consultation Group (ICG) teleconferences were held on <b>March 29, 2012</b> with follow-up consultation held via teleconference [tbd] Interim and subsequent coordination was done via email correspondence to the entire ICG. All comments received have been included in this analysis according to the consultation procedures consistent with the requirements of all applicable regulations including §93.105 (a) and (e) to consider input assumptions and to review findings regarding the transportation conformity. In compliance with 23 CFR 450, a public meeting was also held to receive comments regarding transportation conformity of the TIP and the Plan under all current and NAAQS.

Corresponding 40 CFR Part 93 Section(s)	Evaluation Criteria	SJTPO's Response
§93.113(b) §93.113(c)	Are TCMs being implemented in a timely manner?	There are currently no adopted transportation control measures in the <i>SIPs</i> .
§93.114	Are there a currently conforming transportation plan and a currently conforming TIP at the time of project approval?	Yes. The SJTPO FY 2012 <i>TIP analysis is performed as part of the 2035 Plan Update</i> under the current 8-hour ozone NAAQS, and are the currently conforming <i>TIP</i> and the <i>Plan</i> , respectively.
§93.115	Are the projects from a conforming Plan and TIP?	Yes. The Plan Conformity was approved on September 26, 2011, and TIP projects come from the Conforming Plan. So the TIP and the Plan remain consistent.
§93.118	For Areas with SIP Budgets: Is the Transportation Plan, TIP, or Project consistent with the established motor vehicle emissions budget(s) in the applicable SIP?	Yes. The <i>TIP</i> and the <i>Plan</i> result in fewer emissions than the established budgets for all pollutants in each analysis year.
§93.122(a) (1)	Does the conformity analysis include all regionally significant projects?	Yes. The project sets for the <i>TIP</i> and the <i>Plan</i> include all regionally significant projects.
§93.122(a) (6)	Are reasonable methods and factors used for the regional emissions analysis consistent with those used to establish the emissions	Yes. The ambient temperatures and other factors used in the analysis, including the methods for off-network VMT and speed have been reviewed by the ICG, and have been

<b>Corresponding 40 CFR Part 93</b>	<b>Evaluation Criteria</b>	<b>SJTPO's Response</b>
<b>Section(s)</b>		
§93.122(a) (7)	budget in the applicable implementation plan?	deemed reasonable.
§93.122(b)	Is there a network-based travel model of reasonable methods to estimate traffic speed and delays for the purpose of transportation-related emissions estimates?	Yes. The South Jersey Travel Demand Model is a network-based model used in conjunction with PPSUITE.

## 8 Comments and Responses

	Comment	Date received	SJTPO Response
1	<p>From Matt Laurita, Environmental Engineer, USEPA Region 2</p> <p>I didn't see any mention in the document about relying on the previous analysis. Even though you are presenting the results again, I think the document should make it clear that this is not a new analysis. The fact that the analysis start date is in May of 2011 might be confusing to the public.</p> <p>I would suggest that in the Overview section (and maybe even again in Section 7), you state that this conformity determination is relying on the 2011 analysis, in accordance with 40 CFR 93.122(g), and you are just re-stating the results in this document for completeness (or something to that effect).</p> <p>Let me know if you have questions on this.</p>	5/7/2012, via email	The conformity determination has been revised to address this comment.



## Appendices<sup>4</sup>

1. Final Project List
2. Definition of Regional Significance
3. Tables 2, 3 from §93.126 and §93.127 Transportation Conformity Regulations listing Exempt Categories.

### Description of Appendices

Appendix 1 to this report lists the actual projects that comprise the future transportation system and emissions modeling that are the basis of the conformity determination process. This appendix includes the entire FY 2012-FY 2021 TIP, as well as all the regionally-significant, non-federally funded projects. Generally, the sponsors for these types of projects are the authorities—i.e., the South Jersey Transportation Authority (SJTA), the New Jersey Turnpike Authority (NJTA), and the Delaware River and Bay Authority (DRBA).

For each project, certain information is provided in Appendix 1. The following tables identify the fields:

Field	Definition
New	Identifies if the project is “New” for this fiscal year. If there is no “X,” the project is an existing project carried over from an earlier year.
DBNUM	DBNUM, or “database number”—Unique identifier assigned by sponsoring agency—(NJDOT or NJ Transit), used to identify each project.
Route	Gives specific route, if applicable.
Project Name	Name of Project
Project Description	More detailed description of project.
Regionally Significant	Refers to whether project is “regionally significant,” “Y” or “N,” as deemed by the SJTPO in consultation with the Interagency Consultation Group.
Exempt	Whether a project is exempt (“Y”), or not, (“N”), as determined by the SJTPO in consultation with the Interagency Group.
Exempt Category	Exemption Category provided if project is “exempt.”
Scenario Year	Scenario/Analysis year project placed in. Generally applies only to non-exempt projects.
Source	Project Sponsor

Appendix 2 gives the definition of “regional significance,” as adopted by the Interagency Group at its April 4, 2011 meeting. Appendix 3 are the tables from the Transportation Conformity Regulations 40 CFR § 93.126 *Exempt Projects*, and §93.127 *Projects exempt from regional emissions analyses*, respectively, from which the Exempt Categories are derived.

<sup>4</sup> Due to their volume, the appendices have not been included in the printed document packet. However, anyone interested in reviewing them can contact David Heller, or obtain them via the website, as indicated below.

This entire report, as well as the associated appendices, can also be accessed on the SJTPO website: [www.sjtpo.org](http://www.sjtpo.org), or by contacting David Heller at: (856)-794-1941, or email: [dheller@sjtpo.org](mailto:dheller@sjtpo.org).

# **Appendix 1**

**Fiscal Year 2012-2021**

**Air Quality Conformity**

**Project Listing (Revised Draft)**

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	03304		Bridge Deck/Superstructure Replacement Program	This program will provide funding for design and construction of deck preservation, deck replacement and superstructure replacement projects in various locations throughout the state. This is a statewide program which will address an approved priority listing of deficient bridge decks.	N	Y	Widening narrow pavements or reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program
	X07E		Bridge Inspection, Local Bridges	This program provides regular structural inspection of local bridges as required by federal law. This program also enables the in-depth scour evaluation of potentially scour susceptible local bridges which were not fully evaluated as part of the prior effort.	N	Y	Widening narrow pavements or reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program
	X07A		Bridge Inspection, State NBIS Bridges	This program provides regular structural inspection of state highway and NJ Transit highway-carrying bridges as required by federal law. This program also enables the in-depth scour evaluation of potentially scour susceptible bridges which were not fully evaluated as part of the prior effort.	N	Y	Widening narrow pavements or reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program
	X242		Crash Reduction Program	This is a comprehensive program of safety improvements designed to improve conditions and locations identified by the Highway Safety Improvement Program. Treatments are intended to reduce nighttime, wet weather, fixed object, and icing crashes. These treatments may include pavement improvements, protection or removal of fixed objects, and utility pole delineation. This program will also develop and implement a systematic approach to the installation of lane and roadway departure technologies such as rumblestrips and rumblestrips, signing, and striping to prevent vehicles from leaving their respective lanes and causing crashes, injuries, and deaths. Additionally, this program will also provide for the development and implementation of quick-turnaround projects at locations which show an excessive occurrence of crashes as well as remediation of those locations.	N	Y	Safety Improvement Program		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	98543		Garden State Parkway Interchange Improvements in Cape May	This project addresses grade-separated interchanges at Shell Bay Avenue, Stone Harbor Boulevard, and Crest Haven Road. The following special federal appropriations were allocated to this project. TEA-21/Q92 \$5,125,498, (ID #NJ 026); SAFETEA-LU High Priority \$32,000,000, (ID# NJ 136), (available 20% per year). This project is multi-year funded under the provisions of Section 13 of P.L. 1995, c.108. Total construction funding needed is expected to be \$77,708,448.	Y	N		2020	FY 12-21 Draft Program
	10347		Local Aid Consultant Services	Funding for consultant services to assist Local Aid district staff in administering projects and providing oversight to recipients receiving Local Aid funds. Services also include providing overall quality assurance and quality control for the project delivery process.	N	Y	Widening narrow pavements; bicycle and pedestrian facilities; pavement resurfacing and/or rehabilitation		FY 12-21 Draft Program
	X065		Local CMAQ Initiatives	Under the guidance of the Metropolitan Planning Organizations, local projects will be developed that will enhance air quality. The Congestion Mitigation and Air Quality Improvement Program (CMAQ) was established by ISTEA and is continued under SAFETEA-LU. CMAQ funds are allocated to the states for use in non-attainment and maintenance areas for projects that contribute to the attainment of the Clean Air Act standards by reducing emissions from highway sources.	N	Y	Operating assistance to transit agencies; purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet		FY 12-21 Draft Program
	X41A1		Local County Aid, SJTPO	This program provides funds allocated to the counties within the SJTPO MPO area for transportation improvements under the NJ Transportation Trust Fund Act.	N	Y			
	X98A1		Local Municipal Aid, SJTPO	This program provides funds allocated to municipalities in the SJTPO area for transportation improvements under the NJ Transportation Trust Fund Act.	N	Y	Widening narrow pavements; bicycle and pedestrian facilities; pavement resurfacing and/or rehabilitation		FY 12-21 Draft Program
	06326		Local Project Development Support	This program provides NJDOT project management and environmental support to local governments.	N	Y	Planning and technical studies		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	04314		Local Safety/ High Risk Rural Roads Program	The Local Safety Program provides funds to counties and municipalities for the improvement of dangerous intersections and other road improvements, focusing on pedestrian and vehicular safety improvements of critical need that can be delivered in a short period of time, generally less than 12 months from problem identification to completion of construction. This program also encompasses mandatory federal funding of \$1.7 million per year for High Risk Rural Roads, for safety countermeasures on rural major or minor collector roads, or on rural local roads.	N	Y	Safety Improvement Program		FY 12-21 Draft Program
	X30A		Metropolitan Planning	NJDOT supports the federally mandated Metropolitan Planning Organization (MPO) transportation planning process. The MPO's carry out a "3C" transportation planning process whereby planning activities are conducted on a continuous basis while also providing a forum for cooperative decision making among responsible State and local officials, public and private transit operators and the general public.		Y	Planning and technical studies		FY 12-21 Draft Program
	S0002		Middle Thorofare, Mill Creek, Upper Thorofare Bridges, CR 621	Funding is provided for the proposed replacement of Ocean Drive over the existing Middle Thorofare, Mill Creek and Upper Thorofare on CR 621, as well as the improvement of Ocean Drive from Rt. 109 to the Upper Thorofare Bridge. The following special federal appropriation was allocated to this project. SAFETEA-LU FY 2005, Section 3224 \$1,600,000 (ID# NJ226) (available 20% per year).	N	Y	Reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program
	X35A1		Rail-Highway Grade Crossing Program, Federal	This program will provide funding for the elimination of hazards at rail-highway grade crossings, the rehabilitation of grade crossing surfaces, and the installation of protective warning devices for roadways both on and off the federal-aid system. Funding will also be provided for the traffic control items required during the construction work and the installation of advance warning signs and pavement markings at all highway-rail grade crossings.	N	Y	Railway/highway crossing warning devices; hazard elimination program		FY 12-21 Draft Program
	S044		SJTPO, Future Projects	This program provides funding for local projects to be selected by the South Jersey Transportation Planning Organization, the designated Metropolitan Planning Organization for Salem, Cumberland, Cape May and Atlantic counties.	N	Y	Pavement resurfacing and/or rehabilitation; planning and technical studies		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	X82		Traffic Operations Center (South)	This program provides for the development and implementation of state-of-the-art traffic management techniques including maintaining a traffic operations center; incident management and construction traffic mitigation; highway advisory radio; operation and maintenance of computerized traffic signal, traffic surveillance, motorist information systems; minor Intelligent Transportation System installations; TOC operation for Rt. 29 tunnel; operation of the NJDOT Emergency Call Center (CDU); and other techniques.	N	Y	Traffic control devices and operating assistance other than signalization projects		FY 12-21 Draft Program
	S0103A		Route 9, Northfield Sidewalk Replacement	two 12-foot travel lanes and variable (five to eight foot) width bike and sidewalks are provided adjacent to the roadway the project limits. This project will connect the sidewalks and throughout the project limits. The sidewalks will be pavement.	N	Y	Bicycle and pedestrian facilities		FY 12-21 Draft Program
X	11337		Route 30, Elmwood Rd/Weymouth Rd (CR 623) to Haddon Ave., Pavement	This is a pavement resurfacing project covering MP 36.4-50.8	N	Y	Pavement resurfacing and/or rehabilitation; planning and technical studies		FY 12-21 Draft Program
X	08371		Route 40, Atlantic County, Drainage	NJDOT Operations reports multiple closures due to flooding in this area. Hydrology and hydraulics studies are needed to identify the stormwater drainage needs to reduce future flooding. The current stormwater pipes are inadequate to drain the stormwater causing flooding in the roadway. The past flood closure occurrences and daily vehicular traffic at this location results in a high probability that motorists will be significantly impacted during the next major storm event. The project ranks #14 of 200 in the Drainage Management System.	N	Y	Pavement resurfacing and/or rehabilitation		FY 12-21 Draft Program
X	10336		Route 40, MP 6.0 to 8.0, Pavement	This is a pavement rehabilitation project along Rt. 40 in Salem County. The pavement surface is poor along the entire length of the project. This location is ranked #24 on the 2008 Pavement Projects List.	N	Y	Pavement resurfacing and/or rehabilitation		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
X	2149F1		Route 47/347 and Route 49/50 Corridor Enhancement	Concepts will be studied and developed to implement Intelligent Transportation System (ITS) strategies and alleviate summer traffic congestion in the Rt. 47/347 and Rt. 49/50 Corridors.	N	Y	Traffic control devices and operating assistance other than signalization		FY 12-21 Draft Program
	02310		Route 48, Layton Lake Dam	This project will provide for the proposed improvements to this dam which is identified as a Class 2 rating. The existing spillway is not adequate to pass the design flood without overtopping of the dam.	N	Y	Hazard elimination program		FY 12-21 Draft Program
X	11332		Route 50, Gibson Creek Road to Danenhauer Lane, Pavement	This is a pavement project covering northbound and southbound MP 11.2 to MP 18.5	N	Y	Pavement resurfacing and/or rehabilitation		FY 12-21 Draft Program
	242	NJ 50 and NJ 49	Route 50, Tuckahoe River Bridge (2E 3B)	The replacement will be a fixed structure on the same alignment. The new structure will have two 12-foot travel lanes and 6-foot shoulders, as well as a six-foot sidewalk on the NB side of the bridge. Additional roadway improvements will include signalizing the Rt. 50 and Rt. 49 intersection as well as providing a 15-foot through lane and 12-foot left turn lane NB and a 12-foot through lane and a 15-foot right-turn lane SB	N	Y	Reconstructing bridges (no additional travel lanes) and intersection signalization projects at individual intersections		FY 12-21 Draft Program
	244		Route 52, Causeway Replacement, Contract A	This project will provide for the replacement of 1.2 miles of the interior portion of the existing Rt. 52 Causeway between Elbow Island and Visitor Center Island in both directions. The bridges being replaced in this contract are Elbow Thorofare and Rainbow Thorofare. In addition, access ramps will be constructed down onto Rainbow Island in both directions for fishing and recreational access.	N	Y	Reconstructing bridges (no additional travel lanes) and Bicycle and Pedestrian Facilities		FY 12-21 Draft Program
	01339		Route 54, Route 322 to Cape May Point Branch Bridge	This project will provide for the rehabilitation of the Rt. 54 structure over Rt. 322. The bridge over the Cape May Point Branch will be replaced. A third structure over Rt. 322 will be rehabilitated. This project is multi-year funded under the provisions of Section 13 of P.L. 1995, c.108. Total construction funding needed is expected to be \$33,033,000.	N	Y	Reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program



New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
X	11343		Route 55, Schooner Landing Road to New York Ave., Pavement	This is a pavement project covering Rt. 55, SB 21.8-26.5 & NB 25.0-30.4	N	Y	Reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program
X	02313		Route 109, Garden State Parkway Intersection	A Problem Statement was submitted indicating that numerous motor vehicle accidents have occurred at the intersection of Rt. 109 and the Garden State Parkway due to extremely high seasonal traffic volumes, limited sight distance, inadequate storage, and other factors. It was also noted that queuing often blocks the Rt. 109 to Garden State Parkway northbound movement and U-turns as well as movements at Ninth Avenue.	N	Y	Technical Studies		FY 12-21 Draft Program
	93216		Route 130, Hollywood Avenue (CR 618)	This project provides for safety and operational improvements to address problems caused by the severe acute angle of the intersection. A horizontal curve also causes sight distance problems for Rt. 130 northbound traffic. Local business driveways are believed to contribute to accidents. Scope of project to be determined.	N	Y	Safety improvement program, Increasing sight distance.		FY 12-21 Draft Program
X	09331		Route 206, Bridge over Clarks Creek and Sleepers Brook	This project provides for the superstructure replacement of Structures 0118-154 and 0118-155: Clarks Creek, Deck rating = 5, Superstructure rating = 4, SR = 59.80 and Sleepers Brook, Decker rating = 5, Superstructure rating = 4, SR=60.60	N	Y	Reconstructing bridges (no additional travel lanes)		FY 12-21 Draft Program
X	06405		Route 322, Woodland Drive/Walmart Intersection, Pedestrian Improvements	This project covers pedestrian operational and safety improvements at the Rt. 322, Woodland Drive/Walmart intersection.	N	Y	Safety improvement program, Increasing sight distance		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T05	TRANSIT	Bridge and Tunnel Rehabilitation	<p>This program provides funds for the design, repair, rehabilitation, replacement, painting, inspection of tunnels/bridges, and other work such as movable bridge program, drawbridge power program, and culvert/bridge/tunnel right of way improvements necessary to maintain a state of good repair.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Widening narrow pavements or reconstructing bridges (no additional travel lanes).		FY 12-21 Draft Program
	T06	TRANSIT	Bus Passenger Facilities/Park and Ride	<p>This program provides funds for the bus park and ride program, improvements to bus passenger facilities and the purchase and installation of bus stop signs and shelters systemwide.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).		FY 12-21 Draft Program
	T08	TRANSIT	Bus Support Facilities and Equipment	<p>This program provides funds to maintain NJ TRANSIT's bus fleet including but not limited to, bus tires, engines and transmissions and other parts, support vehicles\equipment (for bus operations), maintenance equipment, and bus mid-life overhaul needs. Also included is midlife rehabilitation of bus facilities, other capital improvements to various support facilities and bus mid-life overhauls.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T09	TRANSIT	Bus Vehicle and Facility Maintenance/ Capital Maintenance	Funding is provided for acquisition/installation/rehabilitation of major components associated with capital equipment and facilities in accordance with TTF requirements and expanded eligibility criteria.	N	Y	Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).		FY 12-21 Draft Program
<b>X</b>	T111	TRANSIT		<p>This program provides funds for replacement of transit, commuter, and suburban buses for NJ TRANSIT as they reach the end of their useful life as well as the purchase of additional buses to meet service demands. Federal lease payments are provided for 1371 Cruiser buses. Pay -as-you-go funding is provided for over 2300 buses replacements over the next 10-years.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>			Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet.		FY 12-21 Draft Program
	T112	TRANSIT	Rail Rolling Stock Procurement	<p>This program provides funds for the replacement of rail rolling stock, including engineering assistance and project management, to replace overaged equipment including rail cars, revenue service locomotives, and expansion of NJ TRANSIT rolling stock fleet (cars and locomotives) to accommodate projected ridership growth and other system enhancements over the next ten years. Funding is provided to support vehicles\equipment (for rail operations).</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T120	TRANSIT	Small/Special Services Program	<p>Funding is provided for NJ TRANSIT efforts which initiate or promote transit solutions to reduce congestion, manage transportation demand and improve air quality. Included are State funds for the Vanpool Sponsorship Program, Transpiration Management Association Program, and Federal funds for East Windsor Community Shuttle operating support. Funding is also provided for capital acquisition/operating expenses for the Community Shuttle Program, Bike/Transit facilitation, and other activities that improve air quality and help reduce congestion.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program
	T121	TRANSIT	Physical Plant	<p>Funding is provided for demolition of out-of-service facilities, energy conservation program, work environment improvements, replacement of antiquated administrative support equipment, purchase of material warehouse equipment, replacement of non-revenue vehicles, and other minor improvements to various bus/rail facilities.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program
	T122	TRANSIT	Miscellaneous	<p>Funding is provided for the continuation of the mandated vital records program and other miscellaneous administrative expenses such as, but not limited to, match funds for special services grants and physical plant improvements incurred throughout the year.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Planning and technical studies.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T13	TRANSIT	Claims Support	<p>Funding is provided for claims related to capital projects, expert witnesses, court settlement, and other costs to defend NJ TRANSIT's interests as a result of litigation.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Planning and technical studies.		FY 12-21 Draft Program
	T135	TRANSIT	Preventive Maintenance – Bus	<p>This program provides funding for the overhaul of buses including preventive maintenance costs in accordance with federal guidelines as defined in the National Transit Database Reporting Manual and federal law.</p>	N	Y	Rehabilitation of transit vehicles.		FY 12-21 Draft Program
	T150	TRANSIT	Section 5310 Program	<p>This program provides funds for the purchase of small buses or van-type vehicles for agencies that serve the elderly and persons with disabilities. Formerly known as Section 21 Program.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program
	T151	TRANSIT	Section 5311 Program	<p>This program provides funding for rural public transportation program. MATCH funds are provided from NJ TRANSIT and local funds.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program
	T21	TRANSIT	Environmental Compliance	<p>Funding is provided for compliance with environmental regulations at both bus and rail facilities includes but is not limited to replacement of leaking fuel tanks, clean up of contaminated soil and ground water, oil/water separators, asbestos removal, and fueling station improvements at various facilities.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Planning and technical studies.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T199	TRANSIT	Job Access and Reverse Commute Program	The Job Access and Reverse Commute Program, funded through the Transportation Equity Act for the 21st Century (TEA-21), is intended to support transportation services to connect welfare recipients and other transit dependents to jobs and related employment activities. JARC program funds are matched with Local and/or TANF funds.	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program
	T20	TRANSIT	Immediate Action Program	Funding is provided for emergency project needs under the rail, bus, and headquarters programs; contract change orders; consultant agreement modifications; and other unanticipated work identified during the course of the year, thus allowing the agency to be responsive to emergency and unforeseen circumstances which arise unexpectedly.	N	Y	Planning and technical studies.		FY 12-21 Draft Program
	T210	TRANSIT	Transit Enhancements	Funding is provided for projects or project elements that are designed to enhance mass transportation service or use and are physically or functionally related to transit facilities as outlined in FTA Circular 9030.1C., including funding for a Statewide Bus Signs and Shelter Maintenance Upgrade Program and historic restoration of NJ TRANSIT facilities.  This project is funded under the provisions of Section 13 of P.L. 1995, c.108.	N	Y	Construction of small passenger shelters and information kiosks.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T300	TRANSIT	Transit Rail Initiatives	<p>This program provides funding for transit expansion projects, including new station construction, Ferry Program, fixed guideway improvements (Rail, Light Rail, BRT, and Ferry), and related vehicle and equipment acquisition. Also included are FTA new starts projects authorized under New Jersey Urban Core or SAFETEA-LU. Potential projects in this category include (in no rank order): HBLR Extension to 8th Street Bayonne; Northern Branch Rail; HBLR Extension to Secaucus; HBLR Secaucus-Meadowlands Connector; Passaic-Bergen rail service on the NYS&amp;W east of Hawthorne using Diesel Multiple Unit (DMU) passenger equipment; Restoration of commuter rail service on the NYS&amp;W west of Hawthorne; Restoration of commuter rail service to Lackawanna Cutoff; Port Morris Improvements; Rail Spur to the Meadowlands Sports Complex; West Shore-Hoboken to West Haverstraw; NERL Elizabeth Segment from NJ TRANSIT'S Northeast Corridor Midtown Elizabeth Station to Newark Liberty International Airport via the Elizabeth Waterfront; Restoration of commuter rail service on the West Trenton line; River LINE LRT Capitol Extension; Second Phase of River LINE LRT/PATCO Extension; Route 1 BRT, Second Phase of NERL (Newark Penn Station to Newark Liberty International Airport); Commuter rail extension in Monmouth and Ocean Counties; Lehigh Third Track Capacity Improvements; Extension of Cape May Seashore Line north to Hammonton (to Atlantic City Rail Line); Commuter Rail extension to Phillipsburg, improvements on the Atlantic City Rail Line, new Portal Bridge, new rail station improvements such as Atlantic City Line/River LINE connection, River LINE Cramer Hill Station, Moynihan Station, Penn Station New York Platform extensions, Penn Station New York Central Concourse, Penn Station New York West End Concourse, E-yard expansion, Bus Rapid Transit Initiatives, Park and Rides and Smart Card Technology Program along with other new and existing systemwide, rail, bus, and light rail initiatives arising during the year. Funding is also provided to advance projects dependent on federal formula funds, federal earmarks, other non-federal (including private) funding, and/or state resources available beyond planned levels. This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Planning and technical studies.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T32	TRANSIT	Building Capital Leases	<p>Funding is provided for capital improvements and lease payment obligations at NJ TRANSIT operating and office installations.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Specific activities which do not involve or lead directly to construction.		
	T34	TRANSIT	Rail Capital Maintenance	<p>The Rail Capital Maintenance project includes Rail Maintenance of Way (MOW) activities and Rail Maintenance of Equipment (MOE) activities in accordance with TTF eligibility requirements.</p>	N	Y	Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way.		
X	T37	TRANSIT	Rail Support Facilities and Equipment	<p>This program provides funds for rehabilitation and construction activities for yard improvements systemwide, improvements at support facilities necessary to perform maintenance work at rail yards including rail capacity improvements including passing sidings, interlockings and electric traction improvements, signal and communication improvements at support facilities and the installation of pedestal tracks necessary to perform maintenance work at rail yards. Funding is provided for systemwide crew quarters, the Meadows Maintenance Complex upgrade/expansion work required to support the new rail fleet, Hoboken Wheel Tru Machine Replacement.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way.		
	T39	TRANSIT	Preventive Maintenance – Rail	<p>This program provides funding for the overhaul of rail cars and locomotives and other preventive maintenance costs in accordance with federal funding guidelines as defined in the National Transit Database Reporting Manual and federal law.</p>	N	Y	Rehabilitation of transit vehicles.		



New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T42	TRANSIT	Track Program	<p>Funding is provided for an annual program of track rehabilitation including systemwide replacement of life-expired ties and other rail improvements, right-of-way fencing, equipment necessary to maintain a state of good and safe repair, purchase of long lead-time materials for next construction season, maintenance-of-way work equipment, interlocking improvements, passing sidings and other improvements. Also included is funding for NJ TRANSIT's capital cost-sharing obligations related to use of Amtrak/Conrail facilities.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way.		
	T50	TRANSIT	Signals and Communication Electric Systems	<p>This project provides funding for continued modernization/improvements to the signal and communications systems, including signal/communication upgrade of interlockings, and other communication improvements. This project also provides funding for systemwide electric traction general upgrades including: substation replacement, wayside hot box detection system, rail microwave system upgrades, replacement of substation batteries and electric switch heaters, emergency power backup systemwide, rehabilitation of systemwide overhead catenary structures and foundations.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Construction or renovation of power, signal, and communications systems.		

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T500	TRANSIT	Technology Improvements	<p>This element funds improvements to passenger communication and fare collection systems and other information technology improvements to meet internal and external customer needs. Funding is included for Public Address Upgrades/Onboard Communication Systems, Bus Radio System Upgrade Program, GIS Systems, TVM Replacement/Expansion, Smart Card Technology and improvements at stations systemwide, computer systems and services, photocopy lease payments, ADA Access Link computer upgrades and upgrades to increase efficiency and productivity of NJ TRANSIT's technology infrastructure to support services to customers.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Construction or renovation of power, signal, and communications systems.		FY 12-21 Draft Program
	T508	TRANSIT	Security Improvements	<p>This program provides funds for continued modernization/improvements of NJ TRANSIT Police and other security improvements.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program
	T515	TRANSIT	Casino Revenue Fund	<p>State law provides 8.5% of the Casino Tax Fund to be appropriated for transportation services for senior and disabled persons. This element also supports capital improvements that benefit the senior and disabled populations. The law provides 85% of these funds to be made available to the counties through NJ TRANSIT for capital, operating, and administrative expenses for the provision of locally coordinated para-transit services. The amount each county receives is determined by utilizing an allocation formula based on the number of residents 60 years of age and over as reflected in the most recent U.S. Census Report.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Operating assistance to transit agencies.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T53E	TRANSIT	Locomotive Overhaul	<p>Funding is provided for the cyclic overhaul of locomotives based on manufacturer replacement standards to support the equipment through its useful life.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Rehabilitation of transit vehicles.		FY 12-21 Draft Program
	T53G	TRANSIT	Rail Fleet Overhaul	<p>This program provides funds for the mid-life overhaul and reliability/safety improvements of rail cars based on manufacturer recommendations and other rolling stock modifications to meet recently issued FRA and APTA mandated standards.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Rehabilitation of transit vehicles.		FY 12-21 Draft Program
	T55	TRANSIT	Other Rail Station/Terminal Improvements	<p>Funding is provided for the design, land acquisition and construction of various stations, parking and related facilities, and upgrades throughout the system including related track and rail infrastructure work. Also included are station and facility inspection and repair, customer service station bike locker installation systemwide, and STARS Program. Funding for Elizabeth Rail Station Reconstruction and North Elizabeth Station Repairs are also included.</p> <p>The total project cost of the Elizabeth Rail Station Reconstruction is \$53 million.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Rehabilitation of transit vehicles.		FY 12-21 Draft Program

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	T552	TRANSIT	New Freedom Program	<p>This program provides funding to encourage services and facilities improvements to address the transportation needs of persons with disabilities that go beyond those required by the American with disabilities Act. The program provides for associated capital and operating costs to help people with disabilities participate more fully in the workforce and in community life.</p> <p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Construction of small passenger shelters and information kiosks.		FY 12-21 Draft Program
	T68	TRANSIT	Capital Program Implementation	<p>Funding is provided for capital project management activities associated with capital program/project delivery including finance, procurement and DBE/SBE activities.</p> <p>This element provides funds for system and infrastructure planning studies to ready projects for design, as well as demand forecasting and other related planning work.</p>	N	Y	Planning and technical studies.		FY 12-21 Draft Program
	T88	TRANSIT	Study and Development	<p>This project is funded under the provisions of Section 13 of P.L. 1995, c.108.</p>	N	Y	Planning and technical studies.		FY 12-21 Draft Program

### Regionally Significant, Non-Federally-Funded Projects

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
	SJTA		<b>Regional Transportation Initiative</b>	Planning, design and feasibility studies for various multi model transportation projects through the South Jersey region.	Y	Y	Technical Studies		SJTA
<b>X</b>	SJTA		<b>ACE/ACY Direct Connector</b>	Design and construction of direct connect roadway from the AC Expressway to ACY Airport.	Y	N		2020	SJTA
	SJTA		<b>ACE Third Lane Widening Westbound</b>	Construction to widen the AC Expressway with a third lane in the westbound direction, from Interchange 8 to Interchange 31.	Y	N		2020	SJTA
	SJTA		<b>Electronic Toll Collection Upgrades</b>	Upgrade of toll collections and violation enforcement using innovative technology through electronic tolling.	Y	N	Previously coded as 63520A	2020	SJTA
<b>X</b>	DRBA		<b>Rehabilitation of Approach Roads (Phase I)-Cape May-Lewes Ferry:</b>	Cape May Approach Roads are in need of rehabilitation. The existing surface exhibits significant spalling and cracking. This project includes the construction of an additional lane along a portion (approximately 1.4 miles) of the approach roads, re-construction of the existing pavement, and upgrading safety features to meet present standards (i.e. guiderail, lighting, drainage, signage). Design is nearing completion and is currently under review by NJDOT. This project is planned for 2011-2012. Phase II design and construction, which includes the remainder of Sandman Boulevard and access roads into the terminal will begin in 2013. The Authority has applied for a grant in the amount of \$2.2 million to help fund Phase I of this work. This budget line also includes \$450,000	Y	N		2013	DRBA

New	DBNUM	Route	Project Name	Project Description	Regionally Significant	Exempt	Exempt Category	Scenario Year	Source
				for work associated with the project regarding the upgrade of the existing railroad crossing operated by Cape May Seashore lines. The total projected cost for Phase I is \$7.7 million with the Authority's share being \$5.5 million.					
X	DRBA		<b>10-2 Toll Plaza Improvements/Electronic Toll Collection-DMB</b>	Miscellaneous toll plaza and electronic toll collection (ETC) upgrades as required are done yearly. These upgrades are required to safeguard against having unplanned interruptions to the system and to provide a reliable and safe toll plaza. This work involves, but limited to, new equipment installation (i.e. variable radar speed signs), installation of a new intercom system, and other miscellaneous improvements. In 2010, money is budgeted to conduct an ETC upgrade study as well as help prepare for the RFP process leading into the next generation of toll plaza/ETC upgrades. In 2012, work will likely begin on the next generation of electronic toll collection to include possible lane re-configurations. The projected cost for this work in 2011 is \$300,000 and \$10 million over five years.	Y	N		2013	DRBA
	NJTA	GSP	<b>Parkway Mullica River Bridge</b>	This project provides for the design and construction phases of improvements at the Parkway crossing of the Mullica River. The primary work includes the construction of a new parallel bridge and bridge redecking, structural repairs and seismic retrofit on the existing bridge, Structure No. 49.0.	Y	N	Part of GSP 30-80 Widening	2017	NJTA
	NJTA	GSP	<b>Parkway Interchange 41 Improvements</b>	Presently local traffic accesses the Garden State Parkway through a service road to the Atlantic City Service Area from Jimmie Leeds Road. This project will provide two additional ramps to allow access to Jimmie Leeds Road to and from the south.	Y	N		2017	NJTA
	NJTA	GSP	<b>Parkway Interchange 44 Improvements</b>	Presently Interchange 44 provides access to the Garden State Parkway to and from the north. This project will complete the interchange to provide two additional ramps with toll plazas to allow access to and from the south.	Y	N		2017	NJTA

<b>New</b>	<b>DBNUM</b>	<b>Route</b>	<b>Project Name</b>	<b>Project Description</b>	<b>Regionally Significant</b>	<b>Exempt</b>	<b>Exempt Category</b>	<b>Scenario Year</b>	<b>Source</b>
<b>X</b>	NJTA	GSP	Parkway Bass River Bridge	Widening and rehabilitation of Parkway's Bass River Bridge. Estimated cost \$80 million.	Y	N	Part of GSP 30-80 Widening	2017	NJTA
	NJTA		Turnpike / Parkway Southern Improvements	This project will provide miscellaneous improvements to mainline and Interchanges located in the southern portion of the Garden State Parkway between MP 0 and MP 48, including a new northbound off-ramp and new southbound on – ramp at Interchange 17	Y	N		2017?	NJTA
	NJTA	GSP	Garden State Parkway Interchange 30 – 80 Widening	One additional lane in each direction between Interchange 30 and 80	Y	N		2017	NJTA

South Jersey Transportation Planning  
Organization

# Regional Transportation Plan 2040

## *Technical Appendix #4: Transportation System Assessment*

SJTPO

July 2012

Version: July 16, 2012



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## Transportation System Assessment

This technical appendix accompanies the Regional Transportation Plan 2040. It contains a review of transportation resources in the SJTPO region. It begins with aviation and continues with bicycle and pedestrian movement, freight, and transit, concludes with an examination of the road network.

### Aviation

A number of airports are located within the SJTPO region, including Atlantic City Airport, a commercial service airport and several general aviation airports (Figure 1).

#### 1. Atlantic City International Airport

The South Jersey Transportation Authority (SJTA), an agency of the State of New Jersey, operates the terminal, runways and related facilities at Atlantic City International Airport (ACY). The Federal Aviation Administration William J. Hughes Technical Center and New Jersey Air National Guard are located at the airport. ACY is located 10 miles from downtown Atlantic City, a gaming and resort community that attracts millions of visitors annually. The airport is situated adjacent to the Atlantic City Expressway, which runs from Atlantic City to the Philadelphia metropolitan region, and intersects with the Garden State Parkway.

In May 2009, a study commissioned by the Casino Reinvestment Development Authority of Atlantic City laid out the plans for a 75,000 square foot, \$25 million expansion to the airport. The project began in December 2010 and is on schedule to be completed by May 2012. The facilities added include three passenger gates, an expanded baggage claim area and a federal inspection station that would allow for international flights. Although the recession of the last few years has hurt tourism in the region, the airport has added demonstrable economic growth and holds strong potential for drawing visitors from across the nation and internationally.

#### 2. General Aviation Airports

In addition to Atlantic City International Airport, the SJTPO region is home to several smaller publicly and privately owned and operated airports including Spitfire Aerodrome (formerly Oldmans Airport) and Millville Municipal Airport. These general aviation airports serve private passenger, agricultural, and/or commercial charter and freight aircraft (Table 1).

**Table 1. Public Use Airports.** Source: NJDOT, [www.state.nj.us/transportation/airwater/aviation/](http://www.state.nj.us/transportation/airwater/aviation/).

Airports	Location	County
Atlantic City International Airport	Atlantic City	Atlantic
Buck's	Bridgeton	Cumberland
Cape May	Wildwood	Cape May
Hammonton Municipal	Hammonton	Atlantic
Kroelinger	Vineland	Cumberland
Millville Municipal	Millville	Cumberland
Ocean City	Ocean City	Cape May
Spitfire Aerodrome (formerly Oldmans)	Oldmans Twp	Salem
Vineland-Downtown (serves Vineland, but is not located within municipal boundaries)		Gloucester
Woodbine Municipal	Woodbine	Cape May

## Bicycle and Pedestrian Facilities

### 1. Introduction

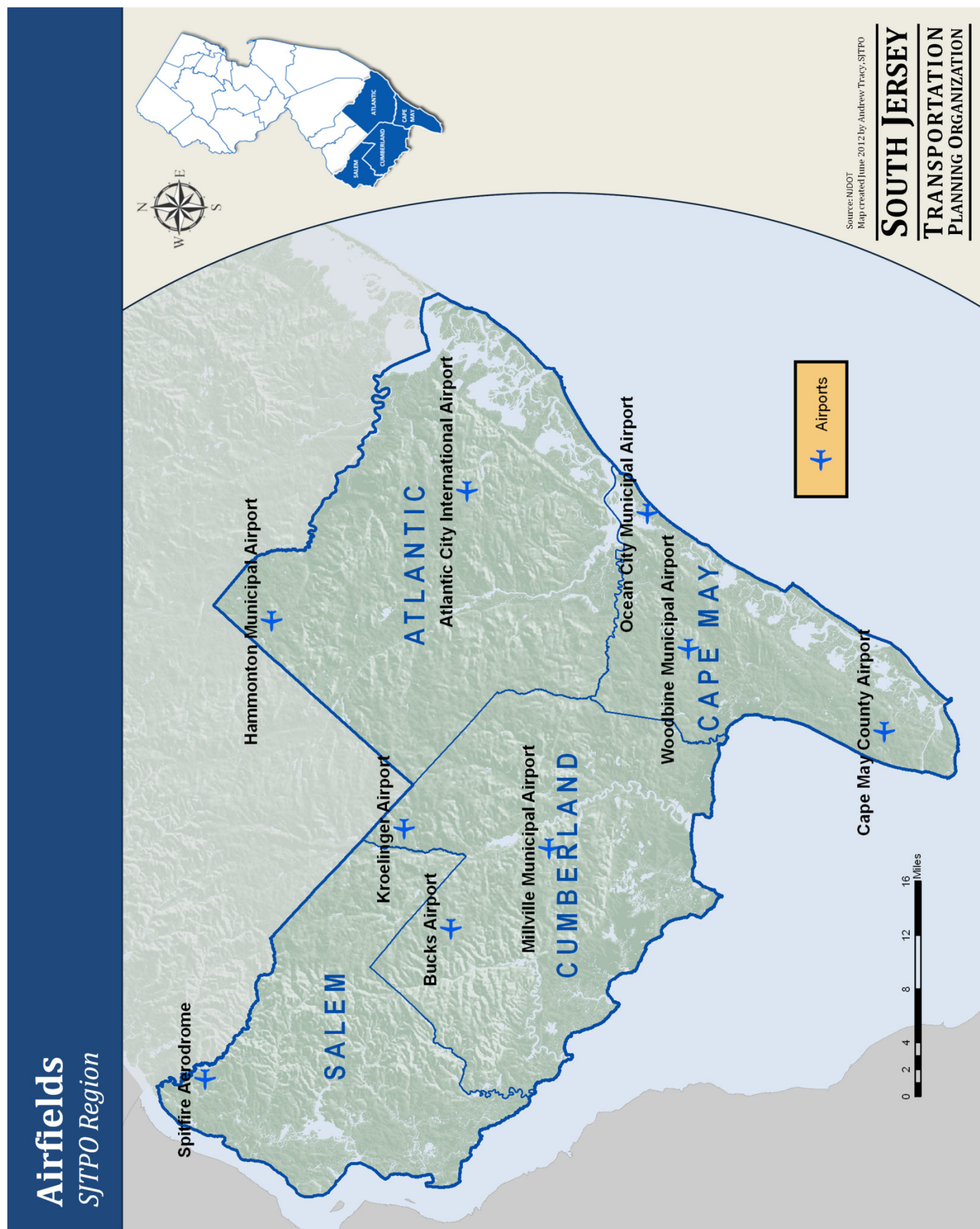
SJTPO makes bicycle and pedestrian mobility and safety a high priority by planning future initiatives and conducting safety campaigns. Each county has been active in planning efforts to further the development of bicycle and pedestrian facilities. Additionally, many municipalities in the SJTPO region require bicycle and pedestrian facilities in new development. Nearly every municipality in the four-county region has existing or planned bicycle and pedestrian facilities for both commuting and recreational purposes (Figure 2).

### 2. Existing Conditions

Currently, the region has a limited number of designated bicycle facilities. The majority of bicycle facilities in the region are non-designated facilities consisting of paved shoulders and shared roadways. However, the existing roadways and streets in the region provide the greatest potential resource for bicyclists. In most cases, existing roadway width, space, and surface conditions may be sufficient to allow safe bicycle travel. Under certain conditions, such as low traffic volumes and low operating speeds or where paved shoulders of adequate widths are present, the existing street and highway network can represent a cost-effective means for developing a bicycle network.

However, the identification of bicycle compatible streets and highways is a complex task. The factors that need to be examined include traffic volumes, lane widths, presence and width of shoulder, motor vehicle speeds, type of traffic, parking conditions, commercial driveways, grade, and sight distance. Therefore, to determine bicycle compatibility of area roadways, it is advisable that each be examined individually.

Figure 1. Public and Private Airfields in the SJTPO Region.



It is also not uncommon to find a lack of pedestrian accommodations or missing links in sidewalks in developed areas of the region as well. Pedestrian facilities include sidewalks, crosswalks, signals, overpasses, underpasses, malls, trails and greenway paths. Sidewalks are common in urban areas but are far less common in suburban and rural areas. Sidewalks need to be continuous, accessible and well maintained in order to be useful. Many sidewalks in the region do not meet these criteria.

Like the rest of New Jersey, the impediments listed above for both bicycle and pedestrian travel are common and many are widespread in the region. Steps need to be taken to remove these barriers to bicycle and pedestrian travel in the region. If bicycling and walking are to become more widespread, a more bicycle friendly and pedestrian friendly environment must be created. Creating these more friendly environments requires improvements in the engineering, design and operation of streets and highways and as well as the creation of more compact land use forms.

As can be seen in the number of projects specifically targeted for bicycle and pedestrian accommodation in the region and the number of roadway and bridge improvements that are being designed to be bicycle and pedestrian compatible where feasible, the SJTPO is actively engaged in making improvements to address the needs of bicyclists and pedestrians.

It is important to encourage the use of alternative modes to provide mobility, accessibility, and improve the quality of life of residents and tourists. This is particularly true in recreational areas where walking and biking trips can play an important role in transportation. It is very important that pedestrian and bicyclist safety be considered and efforts made to improve the facilities in the SJTPO region. Sharing the road and dedicated infrastructure including sidewalks and bike trails will help improve the accommodation of non-motorized modes.

### 3. State Bicycle and Pedestrian Goals

The New Jersey Statewide Bicycle and Pedestrian Master Plan offers five goals to encourage an approach to bicycling and walking as a routine part of the transportation system.

**One:** Create a bicycle and pedestrian infrastructure by planning, designing, constructing and managing transportation and recreation facilities that will accommodate and encourage use by bicyclists and pedestrians and be responsive to their needs.

**Two:** Make community destinations, transit facilities, and recreation facilities accessible and convenient to use by all types and levels of bicyclists and pedestrians.

**Three:** Reform land use planning policies, ordinances and procedures to maximize opportunities for walking and bicycling.

**Four:** Develop and implement education and enforcement programs that will result in reduction of crashes and a greater sense of security and confidence for bicyclists and pedestrians.

**Five:** Increase bicycling and walking by fostering a pro-bicycling and pro-walking ethic in individuals, private sector organizations and all levels of government.

Although multimodal options are preferable, the availability of current bicycle facilities and paths as well as proposed facilities varies in density across the four counties, as illustrated in Table 2, below.



**Table 2. SJTPO Region, Existing and Proposed Bike Lane Miles.**

Source: Cross County Connection TMA, *Bicycle Facilities Inventory: Summary Report, 2008*.

	Existing bike lane miles	Proposed bike lane miles
Atlantic County	37	213
Cape May County	39	79
Cumberland County	75	116
Salem County	7	114

#### 4. Performance Criteria

- **Shared use:** Transportation facilities, at a minimum, shall be planned, designed, constructed and maintained to accommodate shared use by motor vehicles, bicycles, and pedestrians.
- **Encouraging walkability:** Where appropriate, and especially when a roadway project is an integral element of a city, town, or village center development plan, transportation facilities shall be designed, constructed, and maintained to encourage pedestrian activity.
- **Encouraging biking:** Where appropriate, or when a roadway project is an integral element of a bicycle transportation plan or designated bicycle facility system, transportation facilities shall be designed, constructed, and maintained to encourage use by bicyclists.
- **Keeping pedestrians safe:** Pedestrian traffic shall be given primacy over motor vehicle traffic in the design of projects located within zones dedicated to pedestrian movement.
- **Keeping bicyclists safe:** Bicycle traffic shall be given primacy over motor vehicle traffic in the design of projects that encourage use by bicyclists.

#### 5. Journey to Work

Bicycling and walking continue to capture relatively small percentages of regional work trips compared to other modes. The goal of smart growth development and initiatives such as NJDOT's integrated land use and transportation plans is to create communities and road systems that are more accommodating to alternate modes including bicycling, walking, and transit.

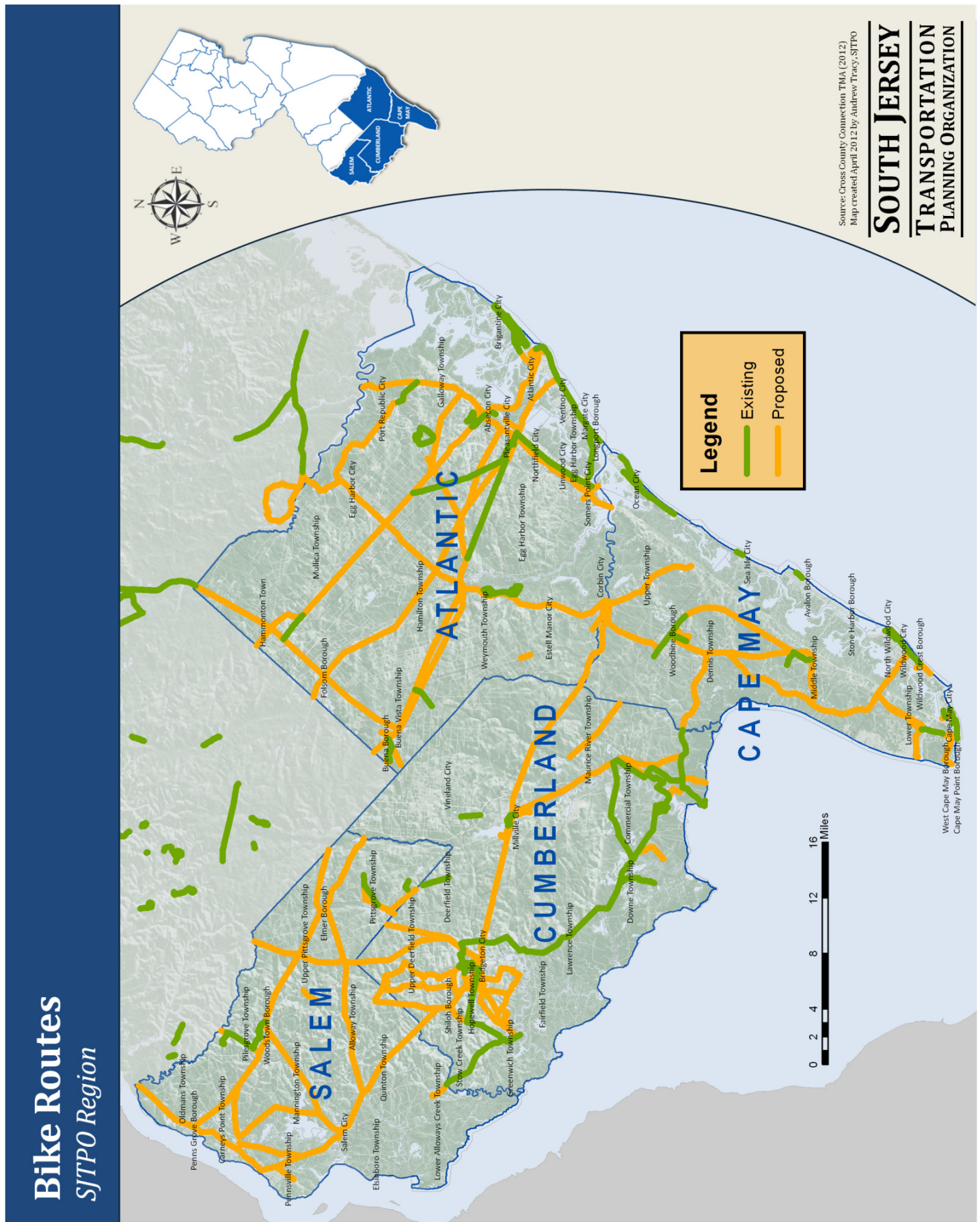
Some areas in Atlantic and Cape May counties have high population and employment densities, as well as mixed land uses and a resort environment; these attributes are conducive to alternate mode travel.

#### 6. Transit Services and Intermodal Connections

There exist several strategies in linking bicyclists and pedestrians with transit services. Providing bicycle-exclusive parking facilities at transit stops and stations is effective in connecting bicyclists with transit facilities.

NJ Transit provides parking capacity for approximately 1,600 bicycles at its public facilities. Racks are located at 90% of the train stations in New Jersey, at several NJ Transit-owned and operated park-and-ride facilities, and at several bus terminals.

Figure 2. Existing and Proposed Bike Routes.





NJ Transit allows bicycles on transit vehicles, including trains and buses. Bicycles are permitted on all buses with bike racks or having an under floor luggage compartment. This service is on a first come, first served basis. As of 2003, half of the NJ Transit bus fleet was considered "bicycle friendly." Further, bicycles can be accommodated on all NJ Transit buses from Atlantic City to areas south; however, due to ADA requirements and the lack of low level platforms on the Atlantic City Rail line, only collapsible bicycles are permitted on that line.

### 7. Impediments to Pedestrian and Bicycle Travel

To facilitate pedestrian and bicycle travel, the built environment must encourage and facilitate walking and cycling by ensuring that these users are taken into consideration during planning and design. Some common obstacles to pedestrian travel include: inadequate pedestrian facilities and signal clearance time, high-speed traffic, high-volume traffic, sidewalk gaps or obstructions, inadequate lighting, lack of pedestrian advocacy groups, little consideration of pedestrians by drivers, and land use patterns that discourage pedestrian usage. Challenges for bicycle travel include: lack of pavement width for shared roadways, pavement with debris or cracks, rumble strips and roadway reflectors, utility covers and drainage grates, lack of consideration from motor vehicles, lack of bicycle parking facilities at activity centers, barriers or restrictions to traveling on bus or rail with bicycles, and safety issues in areas with many driveways.

### Freight

The Southern New Jersey Freight Transportation and Economic Development Assessment report (SNJFTEDA), published in 2010, identified freight and goods movement as critical to the economic stability and vitality of the region, suggesting the following strategic and targeted improvements:

- Enhancing the region's access to key national and international transportation corridors and facilities by providing multimodal connections between freight-related businesses and transportation infrastructure.
- Developing readily available and affordable land adjacent to interstate trucking routes to support warehousing and distribution
- Utilizing the region's available, affordable, and skilled labor pool
- Promoting key industries derived from the region's natural resources, including agriculture and seafood production and processing, glass production, and sand/aggregate
- Taking advantage of the region's access to some of the largest consumer markets and population centers in the nation
- Streamlining the regulatory process to remove impediments to the growth of freight and logistics industries
- Implementing an overall "One Region – One Port" strategy through strategic investments in critical needs. Southern New Jersey can best contribute to attaining this goal by focusing on its strengths, resources, and assets in ways that complement regional facilities in Philadelphia and northern New Jersey.

The same report indicated that the overwhelming majority of freight moves to, from, and within the region and state by truck. While the overall amount of truck traffic in the SJTPO region is modest, it is forecast to grow. Trucks are also the dominant mode of transport in the intermodal freight business: truck to rail, truck to ship, and truck to air.

However, rising diesel and gasoline prices as well as increasing interest in reducing greenhouse gas emissions have prompted greater consideration of alternative freight modes. While rail may be a viable alternate mode (Figure 3); nonetheless, the report identified several gaps in the region's rail infrastructure that must be addressed first. Currently, short line railroad operators in the region link area industry and businesses to the Class I railroad system; this is done through the Conrail network which provides access primarily to Norfolk Southern (NS) and CSX railroads. The rail infrastructure is in a poor state of repair, unable to support standard interstate rail capacity and speeds, resulting in slow speeds and frequent derailments. Investing in improvements to the rail infrastructure would greatly increase rail freight capacity.

Maritime freight transport is of particular interest to Atlantic and Cape May counties; especially as the latter is the fourth largest fishing port in the nation. The market for seafood products originating at this fishing port is both national and international. The sector is currently constrained by limited truck routes and the narrow width of the Middle Thorofare at Ocean Drive that restricts vessel size. Adding truck capacity and wider maritime navigation channels could assist the growth of the fishing industry.

Intermodal connections should be improved in the SJTPO region to facilitate the movement of goods through the region. Improving connections between truck, rail, and maritime traffic would allow goods produced in the region to have greater access to state and national markets.

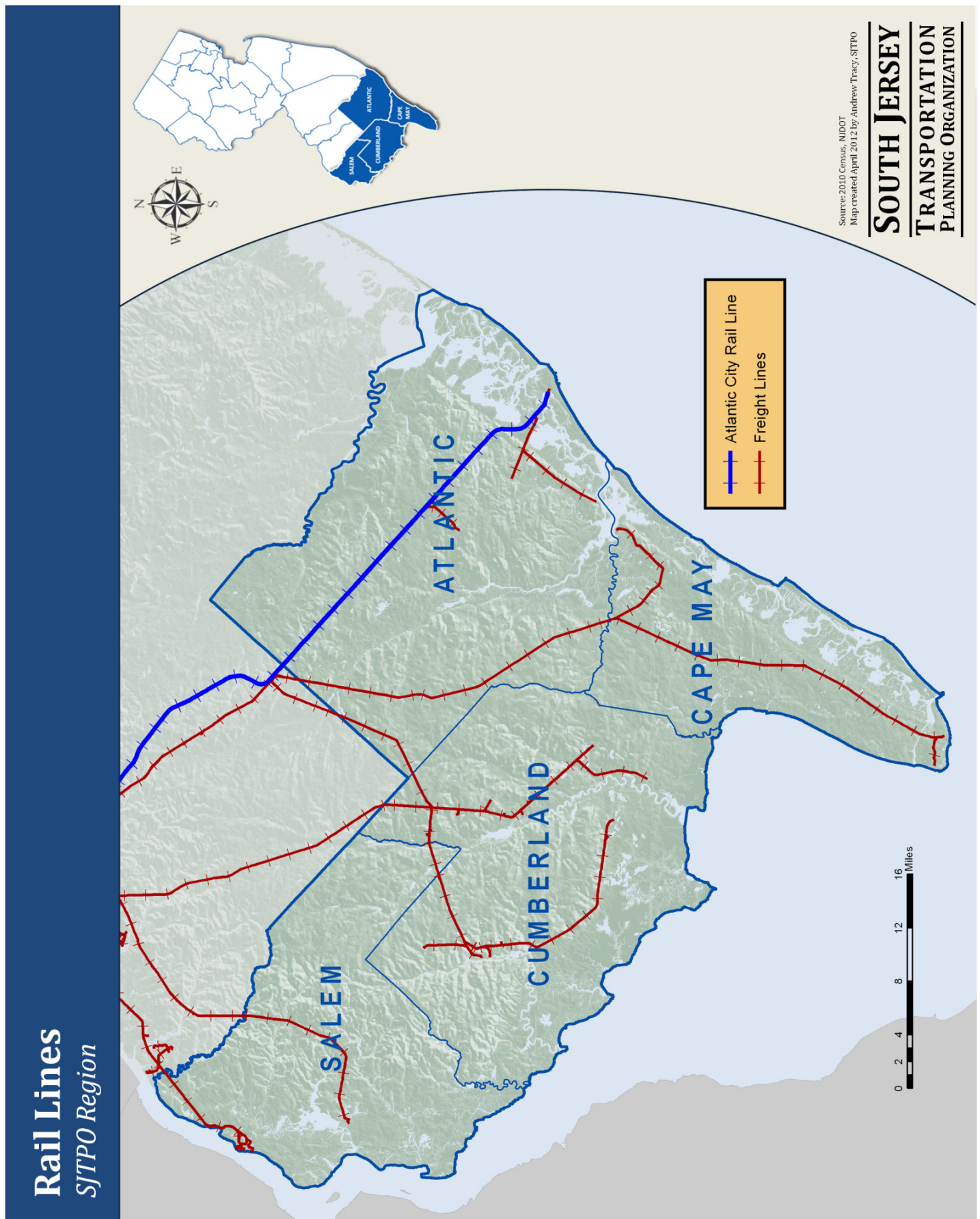
### 1. Key Freight Issues Summary

In 2004, county representatives of SJTPO's Technical Advisory Committee (TAC) met to discuss issues related to the movement of freight in the region; many of the issues and concerns they raised were also reflected in the 2010 SNJFTEDA report. The following list emerged:

- Beyond I-295 and the Turnpike, freeway capacity is limited and the region's locational advantages dissipate rapidly. The time-cost of travel to available and affordable inland properties renders them ineffective for supply chain expansion.
- Double-stacked container freight on rail is increasing in an effort to accommodate the significant rise in the amount of freight that must be moved. Because of height restrictions, however, it cannot travel in southern New Jersey.
- Direct rail connections between North and South Jersey are limited and slow and the movement of goods by heavy rail is limited by 286,000 pound (286k) railcar capacity restrictions. This limits access of construction aggregates to large markets to the north, hampering the region's cost competitiveness and renders many potential customers and markets for South Jersey's high quality aggregates inaccessible.

- The Delair Bridge is a major chokepoint for freight entering from Pennsylvania. An engineering analysis is needed to determine the modifications necessary to correct this problem.
- All major freight corridors in the SJTPO region should be analyzed to identify any other chokepoints (e.g., Hunter Street Bridge in Woodbury) that preclude double-stacked containers.
- Significant trucking activity is causing capacity problems at many intersection and corridors across the region. Turning radii in the Route 322 and 40 corridors (especially during the summer) and are very hard on pavement surfaces. This is also true to a lesser extent in the Route 30 corridor (Egg Harbor is a chokepoint). Freight movement in Atlantic City is not a major problem since the casinos have established their own distribution centers off island; however, trucks bringing products in compete with tour buses and have difficulty navigating the city streets because of their size. Unlike the buses, trucks do not have designated routes in the city.
- Maintenance of rail facilities is crucial. Once rail freight capacity is lost, it cannot be easily regained.
- Freight movement in the SJTPO region is inherently disadvantaged and inefficient, because of its peninsular shape. Rather than accommodating through-travel, freight routes operate as one-way spur movements, moving into and out of the region and often traveling empty on the reverse leg.
- Existing horizontal and vertical clearances of the navigation channel of Middle Thoroughfare at Ocean Drive (CR 621) in Cape May restrict the movement of fishing vessels and hamper operations and cost-efficiencies of fishery operations.
- The Port of Salem offers limited facilities and poor highway access; existing rail is virtually unusable.
- For a full assessment of freight issues, refer to the Southern New Jersey Freight Transportation and Economic Development Assessment report (SNJFTEDA) available at the Freight Planning section of the NJDOT website:  
[www.nj.gov/transportation/freight/plan/initiatives.shtm](http://www.nj.gov/transportation/freight/plan/initiatives.shtm)

Figure 3. Rail Lines including Freight and Passenger Lines.



## Public Transportation

This section examines transit services in the SJTPO region (Figure 4). It includes an examination of regional transit services including passenger rail, bus, and ferry services, ridesharing and specialized transit.

### 1. Regional Transit Services Overview

Although transit service is available in every county of the SJTPO region, most of this service is within Atlantic County and focused within Atlantic City in particular. The tens of thousands of commuters and tourists that work and visit the city on a daily basis provide the demand that is necessary for successful transit operations. The demand for access to Atlantic City is forecast to continue growing and in recognition of the limits of highway development and the desirability of more sustainable options, the 2009 Atlantic City Regional Transportation Plan (ACRTP), developed by the Casino Reinvestment Development Authority (CRDA), highlights the need for a regional multimodal center. The regional multimodal center would be located at the Atlantic City Airport but would act as the point where auto and air travelers convert to transit travelers. The center is planned to include substantial parking to encourage visitors to park and then take bus services into Atlantic City. The project is planned to be completed in 2023.

Relatively low population densities outside the Atlantic City area mean that transit service in the rest of the region is sparse because of lower demand and therefore higher costs.

### 2. Passenger Rail Service

#### *Atlantic City Line*

NJ Transit offers commuter rail services between 30th Street Station in Philadelphia to the Atlantic City Rail Terminal seven days a week on its Atlantic City Line (ACL). The ACL includes stops in Philadelphia (30th Street), Cherry Hill, Lindenwold, Atco, Hammonton, Egg Harbor, Absecon, and Atlantic City.

### 3. Passenger Bus Service

#### *Local and Intrastate Bus Service*

NJ Transit provides a variety of local bus routes within the SJTPO region, as indicated in Table 3, below.

In addition to NJ Transit's local bus service, other operators also provide local bus service. In Atlantic City, mobility is fostered by the Atlantic City Jitneys, providing service along four primary routes. The service is operated 24 hours a day, 365 days a year. Additional shuttle bus services are also operated in the region. Tropiano Transportation, a private carrier, offers shuttle bus service from the Atlantic City International Airport to casinos within Atlantic City. Shoreline Express Tours runs a non-casino hotel and motel shuttle.



**Table 3.** NJ Transit Local Bus Service Routes. Source: NJ Transit.

Route number	Routes
468*	Penns Grove – Woodstown
501	Atlantic City – Brigantine Beach
502	Atlantic City – Hamilton Township
504	Bungalow Park – Ventnor Plaza
505	Atlantic City – Longport
507	Atlantic City – Ocean City
508	Atlantic City – Hamilton Mall
509	Atlantic City – Somers Point
552	Atlantic City – Cape May
553	Atlantic City – Upper Deerfield
554	Atlantic City – Lindenwold
559	Atlantic City – Lakewood

Note: \*Operated by Salem County Transit under contract with NJ Transit Corporation.

The 2009 Atlantic City Regional Transportation Plan (ACRTP) includes the addition of a city transit hub designed to improve connections between rail services and casinos. Planned for completion in 2017, this new hub would facilitate easier mobility from outside Atlantic City to the waterfront tourist areas for both visitors and workers employed by the casinos and other tourism-oriented businesses. The ACRTP further identified two potential bus rapid transit (BRT) routes to facilitate commutes from neighboring municipalities. These routes would improve access for commuters who work in the tourism-oriented shore regions: the first BRT line is planned to run between Atlantic City and Egg Harbor Township; and the second, between Egg Harbor Township and Mays Landing. The ACRTP forecasts the first line to be implemented by 2014, while the second would be completed in 2018.

The Delaware River and Bay Authority (DRBA) also provides bus shuttles from the Cape May Ferry Terminal to the Cape May Bus Terminal. All shuttle bus service is scheduled to coincide with the arrival and departure of the ferry. According to the DRBA website, two continuously looping shuttles operate in Delaware: one between Lewes and the ferry terminal; the other among the Delaware Transit Corporation (DART) Park & Ride lot, the Tanger Outlets, Rehoboth Beach and the ferry terminal. The Cape May shuttle continuously loops between downtown Cape May and the ferry terminal. The shuttle operates with weekend service only from May to mid-June and October. During the summer tourist season it operates daily. More information is available from the DRBA's website at [www.cmlf.com](http://www.cmlf.com) or from their information and reservation office at 1-800-64-FERRY.

Lion Trailways provides bus shuttle services in the city of Cape May called Cape Area Transit (CAT) Shuttle System. This service operates on Fridays and weekends in the late spring and early fall, while service is provided seven days a week during the summer.

### Interstate Commuter Bus Service

In addition to operating commuter rail service on the Atlantic City Line, NJ Transit provides interstate commuter bus services in the region, linking the SJTPO region to cities such as Wilmington, Philadelphia and New York City. Table 4 lists interstate bus services operating in the SJTPO region and the average number of weekday passenger trips.

**Table 4.** NJ Transit Interstate Commuter Bus Routes. Source: NJ Transit.

Note: \*Operated by Salem County Transit under contract with NJ Transit Corporation.

Route number	Routes
313	Philadelphia – Wildwood – Cape May via Route 47
315	Philadelphia – Wildwood – Cape May via Black Horse Pike
316	Philadelphia – Wildwood – Cape May Express
319	New York – Atlantic City – Wildwood – Cape May
401	Philadelphia – Salem
402, 410, 412	Philadelphia – Woodbury
408	Philadelphia – Millville
410	Philadelphia – Bridgeton
551	Philadelphia – Atlantic City

### Casino Bus

In 2011, Atlantic City was visited by more than 25 million people; about 13 percent of whom, or more than 3.3 million, arrived by bus.<sup>1</sup> This high number of visitors arriving by transit reduces thousands of auto trips in the city each day, improving the overall operating characteristics of the region's and Atlantic City's roadway system and reducing the environmental impacts of automobile traffic.

The South Jersey Transportation Authority (SJTA) actively supports programs to facilitate the casino bus operations. The SJTA oversees a bus management program to regulate all casino related bus activities in Atlantic County, including bus intercept, bus parking, bus maintenance, site capacities, traffic management, computerized and electronic permits or medallion validation, routes of travel, discharge and loading of passengers, bus operations and activities, enforcement, and maintenance of a daily bus manifest. The SJTA operates several casino bus parking facilities, providing services to help promote the ongoing use of transit vehicles to bring at least a quarter of all visitors to Atlantic City.

The environmental benefit of these visitors arriving by bus versus private automobile is significant. The SJTPO supports the SJTA's efforts to promote, manage and enhance private bus operations within Atlantic City.

## 4. The Five-Mile Beach Electric Railway Company

The Five-Mile Beach Electric Railway Company (run by the Great American Trolley Co.) operates a trackless boardwalk tram, trackless trolleys, and "community-based services" in Cape May County. Service is provided via the Cape May Loop, Ocean City Loop, Wildwood Crest Loop, and the Rio Grande, Wildwood and North Wildwood routes. Service is provided on some routes year round, however, some

<sup>1</sup> Atlantic City Tourism Sales Barometer (1/10/2012). [www.atlanticcitynj.com/about/stats.aspx](http://www.atlanticcitynj.com/about/stats.aspx)

trips are only made once or twice a day. The Wildwood/Rio Grande/Cape May Court House service has a summer and winter schedule, and during the summer only, the service to Wildwood Crest/North Wildwood operates seven days a week with many trips per day. A complete listing of the routes and schedules can be found at [www.gatrolley.com](http://www.gatrolley.com).

### 5. Ferry Services

Cape May has a bi-state ferry service that offers a 17-mile, 80-minute cruise across the Delaware Bay from Lewes, Delaware, to Cape May on a daily basis throughout the year. The Cape May-Lewes Ferry, owned and operated by the DRBA, provides the service via a fleet of five vehicles. This service runs 365 days a year and accommodates pedestrians, bicyclists, and autos. For more information, visit the website at [www.cmlf.com](http://www.cmlf.com). The DRBA operates a “three fort ferry crossing” linking Fort DuPont in Delaware City, Delaware, to Fort Delaware on Pea Patch Island to Fort Mott.

### 6. Park-n-Ride Facilities

There are a number of park-and-ride facilities in the SJTPO region, both state-owned and joint-use facilities. Table 5 provides a description of the official park-and-rides available in the SJTPO region.

**Table 5.** Official NJDOT Park and Ride Locations in the SJTPO Region. Source: [www.nj.gov/transportation/commuter/rideshare/prlocate.shtm](http://www.nj.gov/transportation/commuter/rideshare/prlocate.shtm), accessed April 13, 2012.

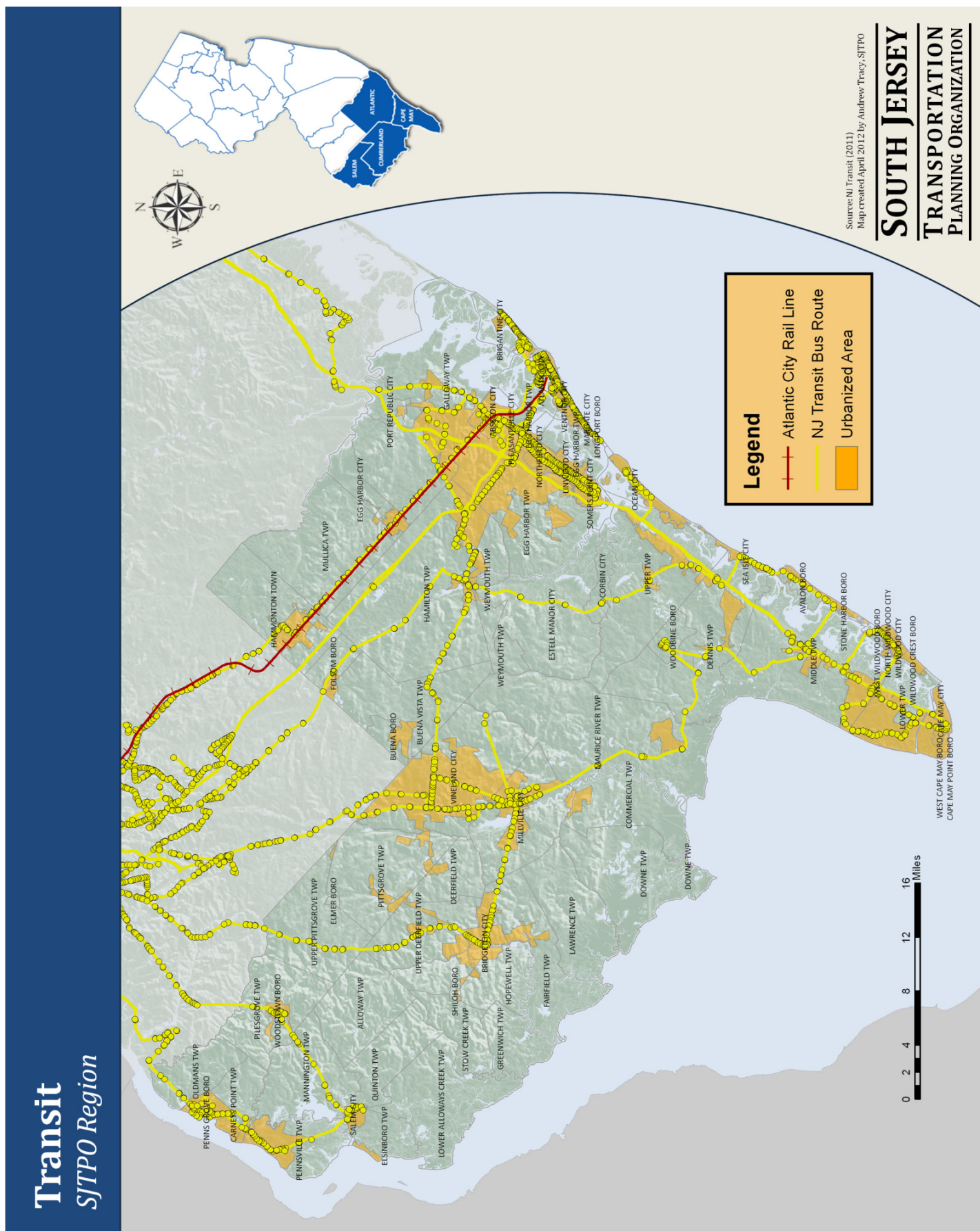
County	Location	Town
Atlantic	Atlantic City Expressway, Intercept lot	Pleasantville City
Atlantic	Atlantic City Bus Terminal	Atlantic City
Atlantic	Atlantic City Service Area, Garden State Parkway	Galloway Township
Cape May	Interchange 25, Garden State Parkway	Upper Township
Cape May	Ocean View Service Area	Dennis Township

### 7. Ridesharing/Alternative Commuter Services

There are no county-based Transportation Management Associations (TMA) in Atlantic, Cape May, Cumberland or Salem counties. TMAs are non-profit member corporations that coordinate local commuter transportation services, including, but not limited to, public transportation, vanpools, carpools, bicycling, and pedestrian modes, as well as trip reduction strategies such as alternative work schedules and telecommuting; and provide other similar services for New Jersey businesses, employees, developers, individuals and other groups. However, because there is some demand for ridesharing, NJDOT has provided the Cross County Transportation Management Association (CCTMA) funding to provide rideshare matching in southern New Jersey. The CCTMA is available to assist any resident, business or local government agency in southern New Jersey with their rideshare or other transportation needs. The CCTMA, which operates primarily in Camden and Burlington Counties, keeps potential carpool participants on file for possible matching.



Figure 4. Selected Public Transportation Routes in the SJTPO Region.



## 8. Human Service Transportation

Numerous Human Service Transportation Programs are administered or operated by various state, county and local agencies and organizations. At the state level, two services are provided: Access Link, which is a state-administered demand-responsive transportation service for the disabled; and Medicaid transportation (LogistiCare), which provides Medicaid recipients with transportation to medical services. County governments in the region operate specialized county-wide transportation for populations who are transit dependent (at present, Salem County's service, operated by the County Office on Aging, is limited to seniors, veterans and disabled) and various county agencies provide transportation for their clients. Non-profit agencies such as Easter Seals, the Puerto Rican Action Committee and Pearl Transit of Salem County provide transportation services to their clients at the local, county or regional level.

There is an insufficient level of coordination of services among providers within each of the counties. Agencies tend to operate their own transportation program independently, serving only clients who meet specific eligibility requirements (for example, senior citizens, the disabled, low-income persons). The Federal "United We Ride" initiative was created to address the need to coordinate human service transportation in order to reduce costs and increase the quality, efficiency and expansion of services. In the most recent response to this initiative, SJTPO completed the *2010 Human Service Transportation Plan Update* (HSTP) for its four counties. Furthermore, SJTPO is assisting Atlantic and Cumberland counties in developing specific strategic plans for implementing the 2010 HSTP recommendations.

The 2010 HSTP includes an inventory of existing services and providers, identifying service needs and gaps, and recommending improvements to correct needs and deficiencies. Most importantly, it proposes various options for achieving service coordination at the county and regional level. Government and private agency applications for various FTA grant programs (for example, JARC, New Freedom, 5310) that fund human service transportation systems operations must be compatible with the identified needs and recommendations of the HSTP; SJTPO reviews and ranks these applications based on the 2010 HSTP Update .

Within each SJTPO County, the 2010 HSTP recommends four coordination alternatives for organizing human service transportation to reduce service duplication:

- Create a coordinating committee between some or all of the current service providers
- Consolidate transportation service functions into one or more agencies (partial consolidation)
- Consolidate all human service transportation service functions into a single agency (full consolidation)
- Create a broker system which would be a framework for the purchase and delivery of transportation services

Specific HSTP recommendations for each county are detailed below.

### *Atlantic County*

- For the county-run transportation system, provided by the Atlantic County Transportation Unit-(ACTU): create a new transit service on major north-south corridors in the county and add additional vehicles to ACTU's weekday service to expand service capacity
- Implement a shuttle service between Pleasantville and the marina casinos (proposed by SJTA).

### *Cape May County*

- For the county-run transportation system, Fare Free Transportation: expand service to weekday evenings and weekends, expand weekday service coverage to each of the county's municipalities since not all municipalities are served daily, and increase frequency of weekday service to each community
- Create a new demand-responsive feeder service to facilitate the work commute between Woodbine and Atlantic City
- Consider non-traditional options for providing service to the county's transit dependent populations, such as the use of cab companies with wheelchair-accessible vehicles to serve the disabled.

### *Salem County*

- Restore the Salem County Interagency Council's JARC-funded services which was suspended in 2010 due to loss of local matching funds
- If the Council's service is restored, expand it to serve the third shift at several companies in the county (within the Gateway Business Park, for example ) and to serve the county's school-to-work trips.
- Address and promote coordination opportunities with the State to incorporate Medicaid and Access Link trips into the proposed County consolidated transportation system.

### *Cumberland County*

- For the county-run transportation system, CATS: expand service to weekday evenings and weekends, and add an additional vehicle to CATS' weekday demand responsive service to provide additional service
- Create a fixed route shuttle to link to downtown Millville from the Millville Industrial Park
- Maintain the current Landis Avenue Express by identifying new funding sources to support continuation of service.

The 2010 Human Service Transportation Plans for the four counties can be accessed on the SJTPO website at [www.sjtpo.org/Publications.html](http://www.sjtpo.org/Publications.html). The HSTP implementation plans for the Cumberland and Atlantic counties will be available on the SJTPO website when they are completed in January 2013.

## Highway System

### 1. Introduction

This section presents a review of highway travel and needs in the SJTPO region. The section begins with an overview of the highway system that describes some of the unique characteristics and principal highway facilities in the region (Figure 5). A conditions assessment follows, derived from data from NJDOT's management systems (Congestion, Bridge, and Pavement), as well as a safety assessment, which draws upon data from the NJDOT, the South Jersey Traffic Safety Alliance, and references the SJTPO Safety Management System. The analysis concludes with a summary of highway needs and problem assessment. This assessment uses a variety of data sources to establish highway travel performance for both the baseline (2010) and future (2040). This process makes use of the South Jersey Travel Demand Model as an analysis tool, and the model scenarios are driven by the SJTPO demographic projections.

### 2. Regional Highway System Overview

#### *Atlantic County*

Home to world famous beaches and the center of the gaming industry on the East Coast, Atlantic County receives a significant amount of traffic on its toll, state, and county roadways (Figure 6). Two limited access roadways play a major role in traffic movement in Atlantic County. The Garden State Parkway, which has four lanes in this area, runs north-south and provides beach and Atlantic City access from North Jersey and New York. The Atlantic City Expressway is also primarily a four lane highway, providing similar access from western New Jersey and Pennsylvania. These two roadways also provide access to AC International Airport, which serves passenger demand along with cargo and New Jersey Air National Guard functions.

The 2009 Atlantic City Regional Transportation Plan (ACRTP) includes plans to widen the Garden State Parkway to accommodate current and future growth as this is a heavily used corridor. Similarly, the ACRTP planned for the addition of a third lane to the Atlantic City Expressway, westbound between Interchange 7 (Garden State Parkway) and Interchange 31 (Atlantic City); this would relieve congestion going westbound, as the attendant eastbound segment of the Atlantic City Expressway already has three lanes. The lane expansion project, undertaken by the SJTA, began in May 2011 and is scheduled for completion in July 2012.

Parallel to the Garden State Parkway, US 9 provides alternate north-south access to the shore communities of Margate, Atlantic City and Brigantine. In the center of the county, NJ 50, which becomes CR 563 north of US 30, provides north-south movement through Mays Landing and Egg Harbor City, as well as access to the Atlantic City Expressway, US 322, US 40, and US 30. In the western portion of the county, NJ 54 passes through Buena and Hammonton, and provides similar highway connections before connecting to US 206 and Burlington County.



US 322 and US 30 run parallel to the Atlantic City Expressway and provide alternate movement from western New Jersey and Pennsylvania to Atlantic City and the shore communities, passing through Hammonton at the western edge of the county. US 40 continues east from the Delaware Memorial Bridge through Buena in the southwest corner of the county until it merges with US 322 near Atlantic City.

The Atlantic City-Brigantine Connector opened to the public in 2001. The 2.3 mile connector is a limited access roadway linking the Atlantic City Expressway with U.S. Route 30 and Atlantic City's Marina District and Brigantine City. The project includes a covered tunnel section as it passes through the city's Westside section.

### **Cape May County**

Because of its recreational and tourist attractions, Cape May County encounters significant seasonal recreational travel. The major traffic movement in Cape May County is north-south travel along the Garden State Parkway and US 9 (Figure 7). The Garden State Parkway is a four-lane divided limited access highway that services the shore communities such as Ocean City, Sea Isle City, Avalon, Stone Harbor, Wildwood, and Cape May. US 9 runs parallel to the Garden State Parkway and serves as an alternate north-south route in different sections of the county. These two roadways serve both inter- and intra-county travel. NJ 47 provides north-south access from areas such as Cumberland and Salem Counties to the western Cape May County shore. At its southernmost end, it turns east to carry motorists directly into Wildwood, one of the county's busiest towns.

The majority of east-west traffic travels along a series of county roads which connect Ocean Drive and the seaside communities to the Garden State Parkway and US 9. West of US 9 and the Garden State Parkway, several county roads connect US 9 to NJ 47. Coupled with NJ 83, which also runs west from US 9, and CR 550 from US 9 to Woodbine, a limited network is formed across the county.

The current termination of the NJ 55 expressway in Cumberland County complicates travel to and from Cape May County from points west. This condition contributes to congestion along the supplementary routes used to complete movements from the terminus of Route 55 to the shore, which are forced to serve conflicting local access with this regional mobility need.

### **Cumberland County**

A four-lane limited access freeway, NJ 55, allows north-south travel in Cumberland County, passing through Millville and Vineland, the largest cities in Cumberland County (Figure 8). The NJ 55 expressway terminates at NJ 47, south of Millville. NJ 47 runs mostly parallel to NJ 55 as a two to four lane principal arterial until the two run coincident and then split into NJ 47 and NJ 347. From there, NJ 47 continues into Cape May County, providing access to the shore communities. NJ 77 continues south from Salem County to Bridgeton in Cumberland County. Smaller county roads such as 555, which runs through Millville and Vineland, and 553, which runs through Bridgeton, also service north-south traffic.

Figure 5. Overview of Roadways.

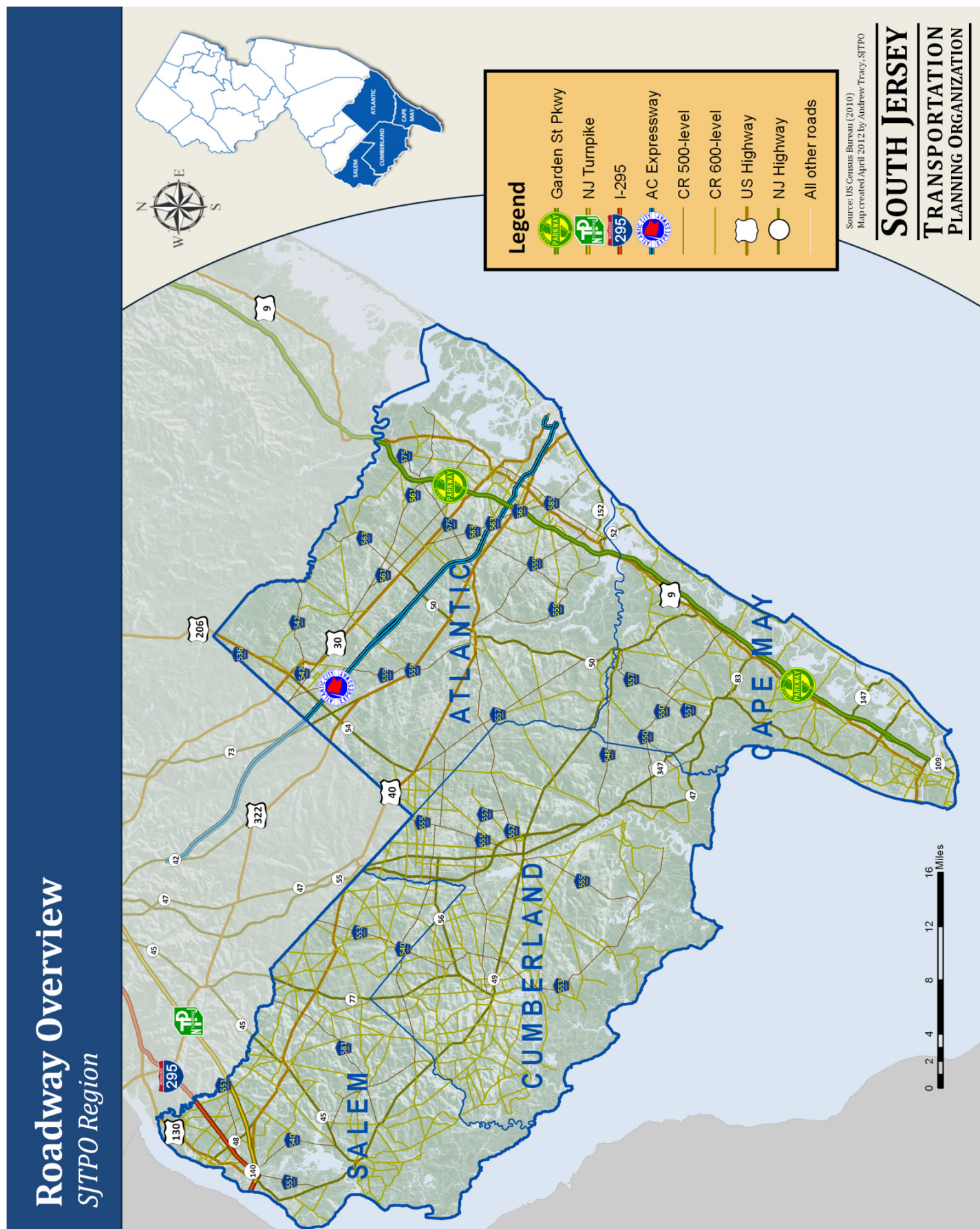
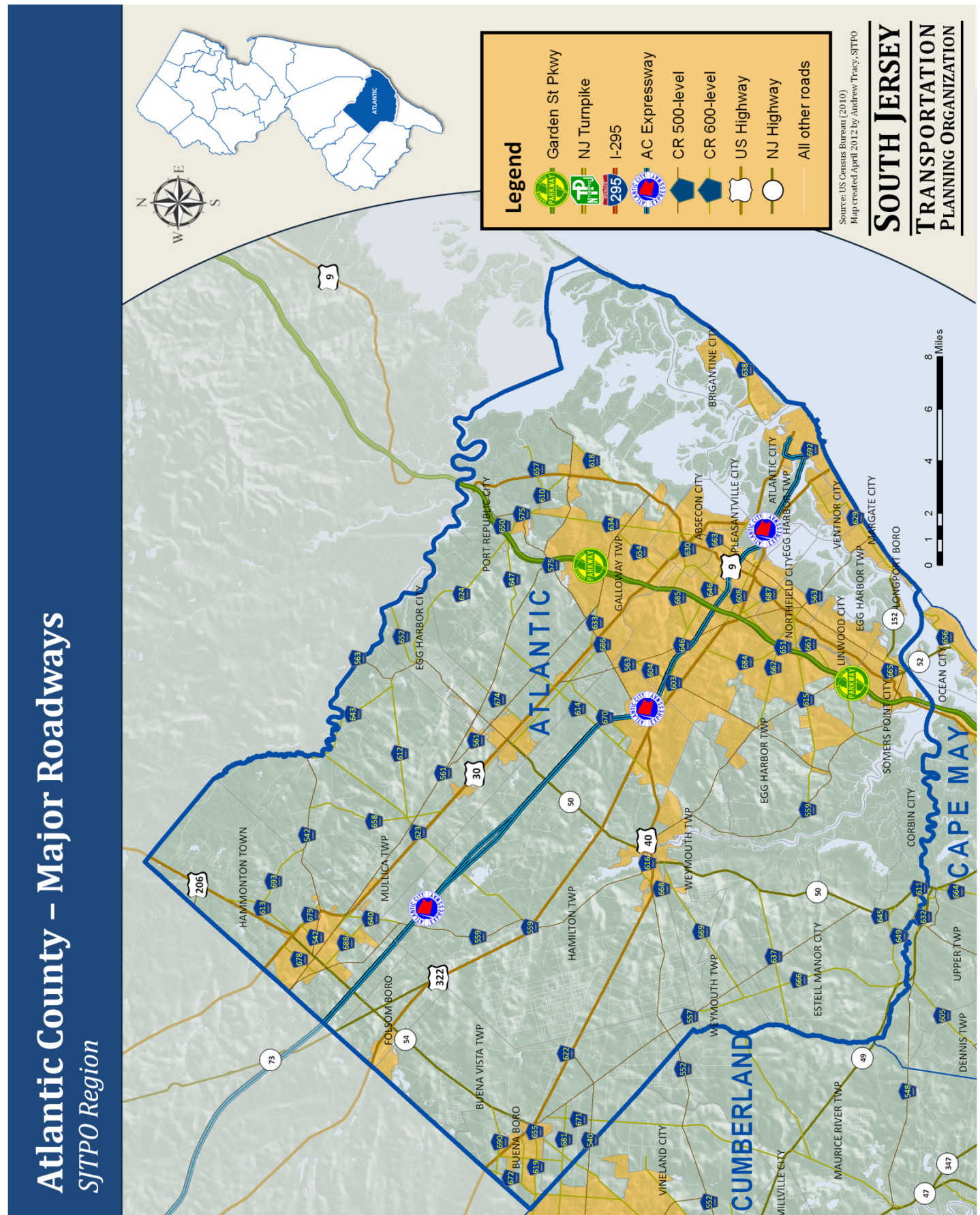




Figure 6. Major Roadways, Atlantic County.



East-west travel in Cumberland County is serviced by NJ 49, a two to four lane minor arterial that connects eastern New Jersey with the Delaware Memorial Bridge via Cumberland County.

### **Salem County**

In Salem County, the Delaware Memorial Bridge provides a major regional connection between New Jersey and Delaware. Several major highways provide access to this bridge, including I-295, the New Jersey Turnpike, and US 130 from the north, US 40 from the east, and NJ 49 from the southeast (Figure 9). US 40 is a two-lane principal arterial that stretches from the vicinity of the Delaware Memorial Bridge to Atlantic City. US 130 provides access to and from the bridge to Gloucester County and areas to the north such as Camden and Mercer County.

### **Roadway Ownership**

Total linear roadway mileage in the SJTPO region is over 5,100 miles. State ownership includes 397 miles owned by NJDOT, 94 by the independent authorities and commissions, and 45 miles by various other State agencies. Almost all of the balance, nearly 4,600 miles, is owned by various counties and local governments.

## **3. Electronic Tolls**

Significant congestion occurs at many of toll New Jersey's collection facilities in both AM and PM peak travel hours and during many holidays and weekends. Electronic toll collection is designed to reduce traffic congestion and improve air quality and traveler convenience by mitigating bottlenecks that occur at toll booths and plazas.

The E-ZPass electronics toll system is in wide use in the eastern United States, including each state between Maine and West Virginia, and also includes facilities in Indiana and Illinois. The E-ZPass electronic toll collection is operational on all of New Jersey toll roadways (Garden State Parkway, New Jersey Turnpike, and Atlantic City Expressway). In the SJTPO region, the Atlantic City Expressway (ACE) offers a discount to frequent patrons who sign up for the E-Z Pass Frequent User Plan.

## **4. Safety Strategies**

The SJTPO incorporates safety considerations into the planning process through two primary venues: the Road Safety Audit Program, and the South Jersey Traffic Safety Alliance.

### **Road Safety Audit Program**

SJTPO advances safety in the South Jersey region by needs identification, project development, project selection and programming, as reflected in SJTPO's Road Safety Audit Program. SJTPO annually conducts Road Safety Audits (RSAs) to generate improvement recommendations for roadway segments or intersections demonstrating a history of, or potential for, a high incidence of motor vehicle crashes.



Figure 7. Major Roadways, Cape May County.

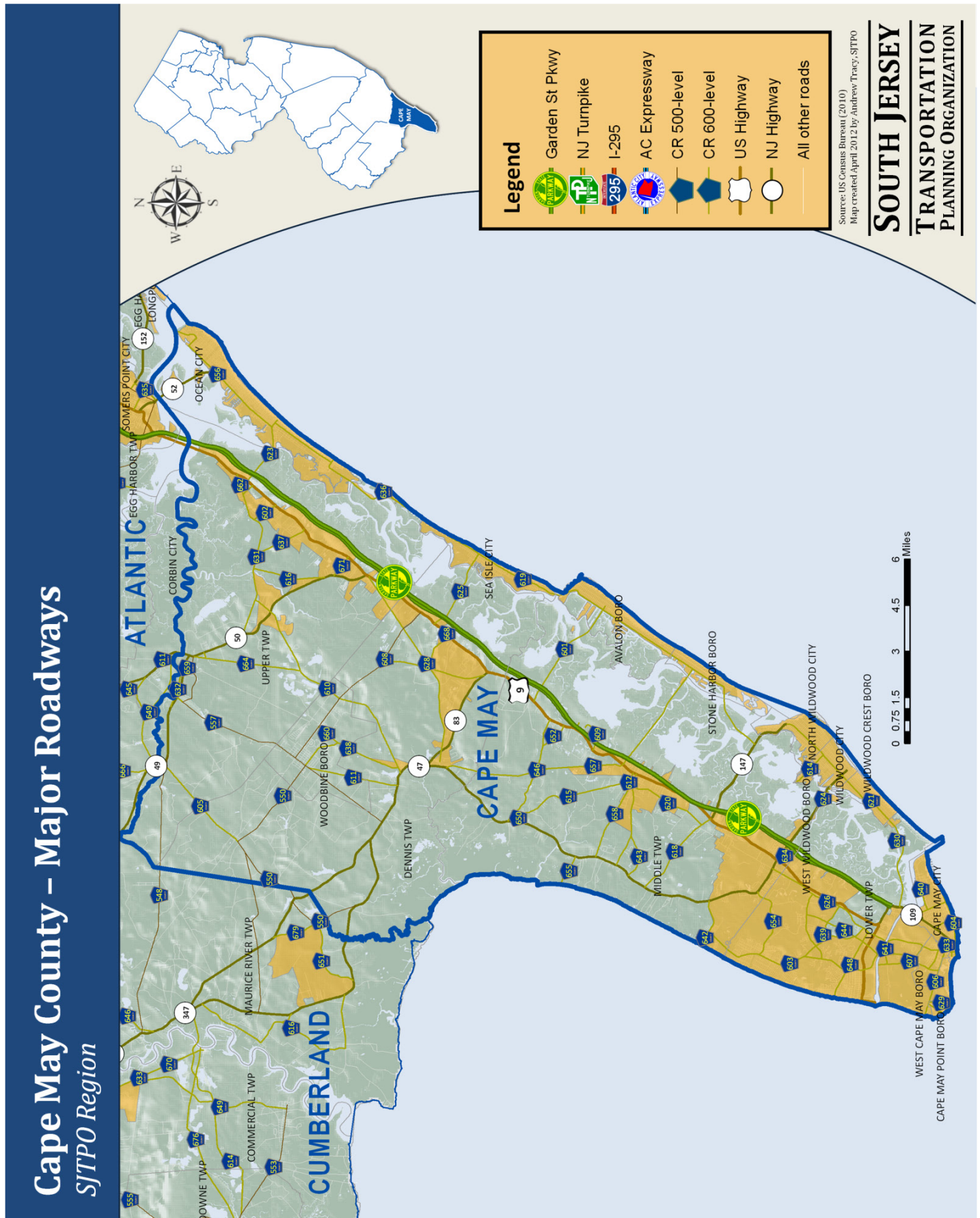




Figure 8. Major Roadways, Cumberland County.

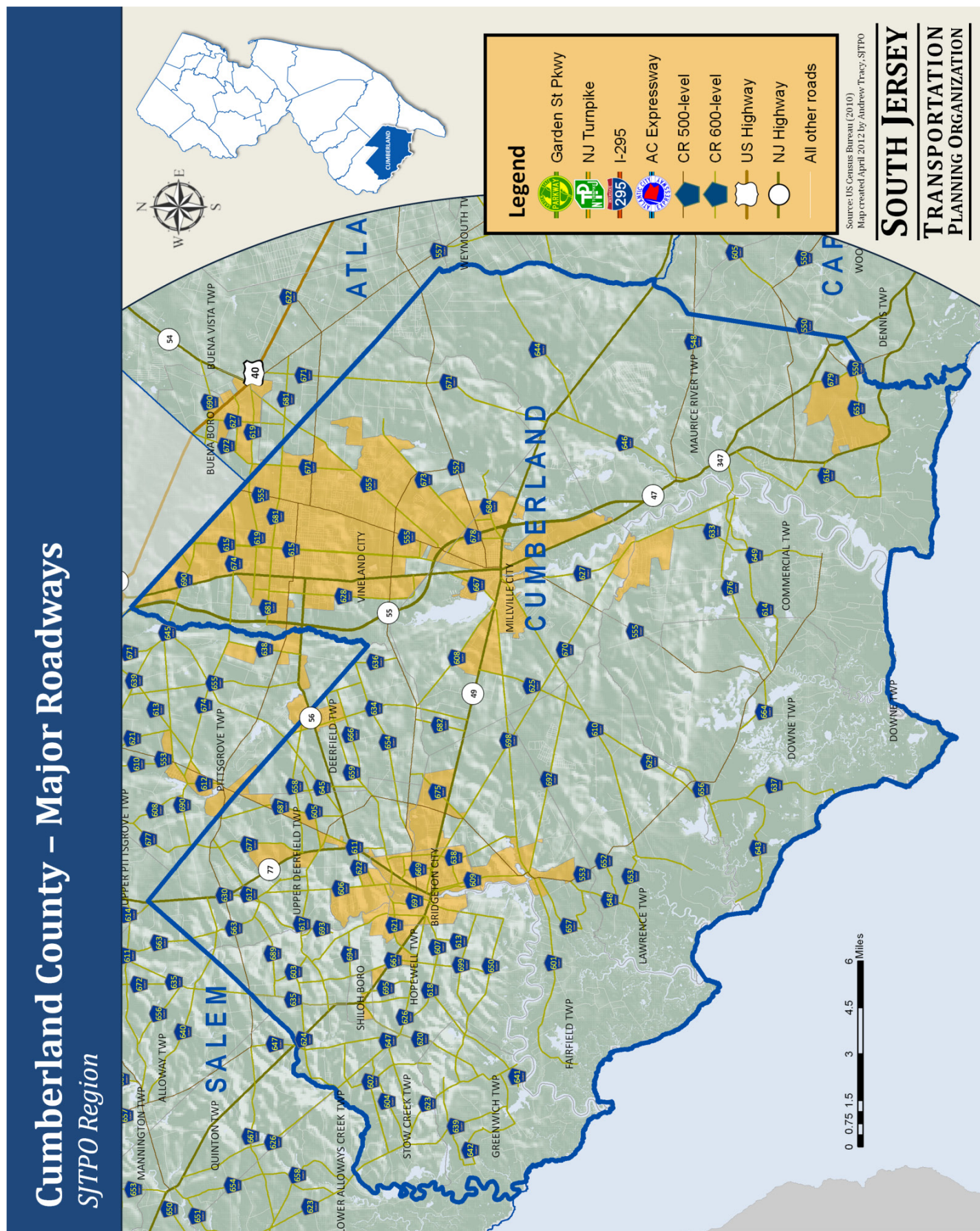
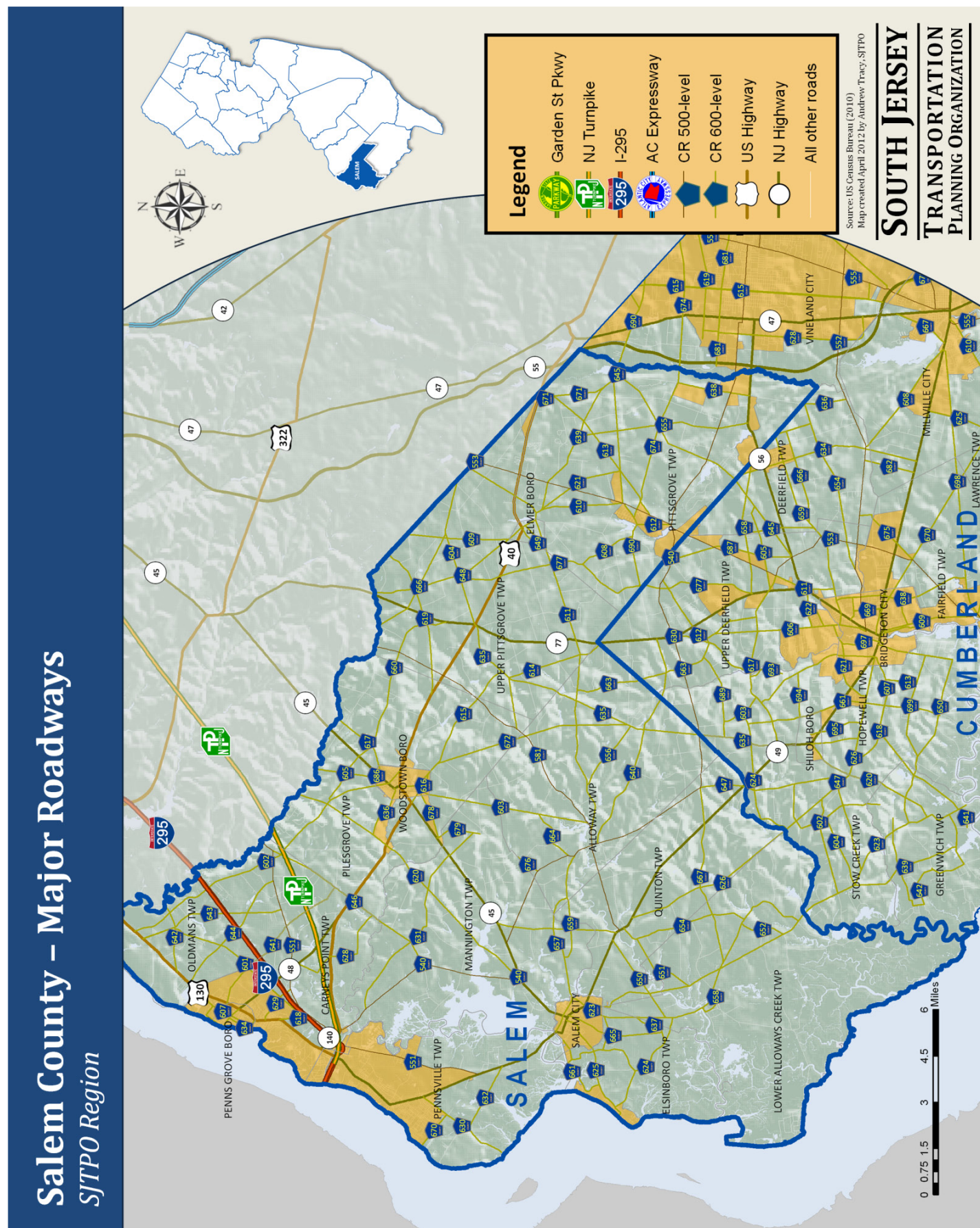




Figure 9. Major Roadways, Salem County.



An RSA is a proactive approach to improving transportation safety and it can be performed during any stage of a project. In an RSA, an existing or future roadway is examined by independent qualified experts who report on the safety issues. SJTPO's RSA program responds to the Federal Highway Administration's call for New Jersey's MPOs to advance low-cost, quick turnaround safety improvements. For larger scale improvements, an audit can be the basis for a Problem Statement and eventual Study and Development or TIP entry. The RSA program is a key element in achieving a reduction in fatalities and injuries on the highway system in our region, which aligns with the current SAFETEA-LU legislation and the Highway Safety Improvement Program flexibility for safety initiatives.

In the SJTPO region, conducting RSAs on existing roads is the primary approach to implementing safety improvements in a timely fashion. Site selection for the audit location is both qualitative and quantitative, drawing on local knowledge and incorporating historic crash data. The procedure for selecting the sites for the audits is outlined below.

**Site Nomination:** This process is primarily qualitative, relying on recommendations from county engineers, planners and SJTPO staff, based on their knowledge and experience. These officials are asked to consider the potential for the safety impacts that could be realized by low-cost, quick turnaround measures. SJTPO then screens the nominated sites for suitability in terms of geographic compactness, local support, local control and available planning funds.

The process also has a quantitative component in which sites are reviewed and ranked on crash history (a high number of total crashes, crash clusters, and a high number of crashes per mile). Crash totals and rates for these sites are obtained using Plan4Safety, a crash analysis tool developed by Rutgers University for NJDOT.

**Crash Data Analysis:** SJTPO also identifies RSA candidates through an extensive crash data analysis. This investigation uses a "top down" approach looking at three years of crash data covering all roads in the SJTPO region, isolating those roads with the highest crash per mile history. These sites are also verified to contain the qualities of a suitable selection listed above (local control, etc.).

In addition to the RSA Program, SJTPO has partnered with Rutgers Transportation Safety Resource Center (TSRC) and Salem County to take a systemic approach to utilizing FHWA Highway Safety Improvement Program funding. The typical approach to identifying locations for safety improvements is a *hot spot* approach where a location is selected because of a high instance of crashes. In contrast, in a *systemic* approach, locations are targeted for improvements when they share similar geometric characteristics even though they may not have a history of crashes. With the release of the *Highway Safety Manual (HSM)* in 2011, SJTPO has begun incorporating the predictive methods outlined in the publication in the evaluation of safety countermeasure selection. The *HSM* allows agencies to integrate safety into their decision-making process by quantifying safety alongside other transportation performance measures such as traffic operations and environmental impacts. Using crash predictive methods along with a calculation of economic benefit ensures monies are spent in the most effective

means possible. SJTPO will also incorporate *HSM* methodologies into other stages of the project development process.

In all SJTPO's safety efforts, consistency with Federal and State initiatives is essential. In 2005, the FHWA created a Focused Approach to Safety (updated in 2011) with the purpose of addressing the most critical safety needs for each state; New Jersey is a Focus Approach state for pedestrians and intersections. To compliment the FHWA focus areas for New Jersey, the *State's Comprehensive Strategic Highway Safety Plan* (CSHSP) identifies emphasis areas with supporting strategies and actions. Three of the eight areas directly align with SJTPO's safety program and can benefit from low-cost safety improvements, including minimizing roadway departure crashes, improving design and operation of intersections, and reducing pedestrian, bicycle, rail, and vehicular conflicts.

### **South Jersey Traffic Safety Alliance (SJTSA)**

Working with the New Jersey Division of Highway Traffic Safety, SJTPO spearheaded the creation of the South Jersey Traffic Safety Alliance in 1998. Based on its record of regional cooperation, the SJTPO Policy Board supported forming a similar four-county organization to help SJTPO carry out federally-funded regional planning and project development in the region, as well as develop regionwide traffic safety programs, train traffic safety professionals and educate motorists about the dangers of driving, in an effort to reduce motor vehicle collisions, injuries and fatalities.

Since 1998, the SJTSA has helped SJTPO select locations for sidewalks, acquire speed trailers, and identify specific problem locations for the Regional Transportation Plan. In a reciprocal relationship, SJTPO has acted on behalf of the SJTSA by making connections with members of the county planning departments, county engineers, and the NJDOT, to address specific safety concerns identified by SJTSA members.

The SJTSA is headed by an Executive Board made up of twelve members, three from each county and it is in charge of policy and direction of the SJTSA. The SJTSA is a unique traffic safety organization with the goal of creating an alliance with traffic safety professionals from law enforcement, community education, fire, rescue, engineering and planning.

Motor vehicle fatalities in the SJTPO/SJTSA region account for nearly 20% of all motor vehicle fatalities in the State of New Jersey. Distracted driving, including cell phone use, speeding and impaired driving contribute to over 50% of the regions fatal crashes. Lack of seatbelt use is an additional factor.

The SJTPO and SJTSA conduct an annual regionwide seatbelt observational survey. Survey findings show that general public seatbelt use is over 90%; whereas seatbelt use for teens is only 85%; for seniors, only 76%; and for commercial vehicle drivers it is 75%. The SJTSA will continue to make education and instruction for these users a priority, with the goal of increasing seatbelt use.

The FY2012 seatbelt survey will also gather information on backseat belt use and child restraint use for children under 18. National studies indicate that backseat belt use is between 50% and 75% and



booster seat use for children 5 to 8 years old is less than 50%. The SJTSA will continue to educate motorists on the importance of buckling up in the backseat and promote booster seat use.

### 5. Management Systems

A significant source of data that is available to evaluate conditions in the SJTPO region is the management system data. Information from available management systems were obtained and utilized in the development of the RTP, including information from NJDOT's Bridge Management System, Pavement Management System, and Congestion Management System, and the SJTPO Congestion Management Process. Data derived from the Safety Management System was also utilized.

The information presented in this section refers to state highways in the SJTPO region. Similar information will soon be available to SJTPO for its county and select municipal roads. Presently, SJTPO is implementing an Asset Management System (AMS) throughout its region. The system implementation process and final product will provide inventory and condition information for pavements as well as other select road assets. A description of the SJTPO AMS process and product follows at the end of this section.

#### Bridge Management System

NJDOT employs a Bridge Management System (BMS) to maintain an inventory of all bridges with a span over 20 feet in New Jersey with information on their physical characteristics, condition, and ownership. Bridges are inspected periodically and the various characteristics are rated on numerical scale. The scale ranges from 0 to 9, with 0 representing a failed condition and 9 representing an excellent condition. A bridge can be defined as *Structurally Deficient*, *Functionally Obsolete*, or both. A bridge is deemed *Structurally Deficient* if its deck, superstructure, substructure or culvert are rated 4 (poor) or less or if the overall structure evaluation for load capacity or waterway adequacy is rated 2 (critical) or less. *Structural deficiency* does not necessarily mean that a bridge is unsafe. It may mean that the bridge is unable to handle the vehicle loads or speeds that would normally be expected on the roadway where the bridge is located and is posted to indicate these limitations.

A bridge is classified as *Functionally Obsolete* if the deck geometry, underclearances (vertical and horizontal), approach roadway alignment, overall structural evaluation for load capacity or waterway adequacy are rated as 3 (serious) or less. *Functional obsolescence* may mean the width or vertical clearance of the bridge is inadequate. Bridges become functionally obsolete due to highway improvements, such as lane additions on the approaches to the bridge or due to changes in freight movement technology or practice.

The overall rating given to each bridge is called the sufficiency rating which indicates a bridge's ability to remain in service. The rating may range from 100 which represents a bridge meeting state-of-the-art standards, to 0 which represents a bridge in need of immediate repair or replacement. The physical condition of the structure is monitored by NJDOT at a minimum of once every two years to ensure that each bridge can safely carry vehicles at the posted truck load.

The primary use of the sufficiency rating is to allocate federal funds to address bridge needs. A structure is eligible for federal funds if its sufficiency rating is less than 80 and is designated as *Structurally Deficient* or *Functionally Obsolete*. If the sufficiency rating is between 50 and 80, the federal funds are applied for rehabilitation purposes only, while a sufficiency rating of less than 50 allows federal funds to be used for rehabilitation and replacement.

Data sets for two years, 2008 and 2012, are included in Table 6. The trend line indicates some improvement in the overall state of the region's bridges during this period, with the percentage of NJDOT owned *Structurally Deficient* or *Functionally Obsolete* bridges decreasing from 28.1% of the total in 2008 to 21.25% in 2012.

This is a significant finding as it indicates that the region has made significant progress in addressing bridge needs over the four year period covered by the data. This finding is in accordance with the overall progress that NJDOT has made in increasing the percentage of its bridges that are neither structurally deficient nor functionally obsolete from 2008 to 2011.

**Table 6. Bridge Ratings in the SJTPO Region.**

	2008		2012		Change, 2008-2012
Bridge Status	Count	% of Total	Count	% of Total	Count
Neither	383	71.9	378	78.8	(5)
Structurally deficient	78	14.6	48	10.0	(30)
Functionally obsolete	72	13.5	54	11.0	(18)
Total	533	100.0	480	100.0	(53)

Source: NJDOT Bridge Management System Database, December 2008; NJDOT Bridge Management System Database, March 2012.

### **Pavement Management System**

NJDOT maintains a database with information on the current condition of pavement throughout the state of New Jersey, which is updated every two years. The most recent 2011 database was used for this report and comparison to data for 2008 to 2010 are also included, as shown in Table 7, Figure 10 and Figure 11. A detailed description of the Pavement Management System and the criteria behind the rankings is given below.

The process of pavement system condition analysis begins with collection of pavement condition data. Complete data are collected for all NJDOT maintained roadways throughout the State of New Jersey and are in the Pavement Management System (PMS) databases. Analysis is then performed to generate condition indices and to assess condition status.

### **Pavement Condition Data**

All data with the exception of frictional skid data are collected on an annual basis using a high speed profiler van. Skid data are collected on an as-needed basis using a specially calibrated skid trailer. All data for network inventory purposes are collected in the rightmost lane in each direction of travel. Data are processed and recorded in tenth mile reporting intervals.

- **Roughness Data:** International Roughness Index (IRI) is collected using lasers to measure the deviations of the pavement surface from a perfectly flat condition. A dynamic computer model of vehicle suspension is then used to predict vehicle occupant response to the imposed road profile. IRI is generated in inches per mile, with a larger IRI representing a rougher road surface. IRI is collected and recorded for the left and right wheel paths and an average of the two is also calculated.
- **Rut Data:** Ruts (depressions in the pavement surface primarily in the wheel paths) are measured in inches using a laser line scan applied to images of the transverse road profile for the collection lane. Average rut is calculated as the average for each wheel path over the tenth mile reporting interval. Also calculated is the maximum rut for the left and right wheel path using a moving average of approximately 15 feet.
- **Surface Distress Data:** Surface distress assessments are based on windshield surveys done by a rater in the high speed profiler van. The rater uses a computer keyboard with each key representing a specific type of distress and a specific severity level. The computer software records the road locations when a particular key is toggled on and off. It then calculates the portion of the tenth mile reporting interval (represented as a percent of the tenth mile length) that the particular distress and severity were present.
- **Frictional Skid Resistance Data:** Skid numbers are measured in accordance with the ASTM E-274 method of testing using a wet condition wheel lockup. Measured numbers at various test speeds are normalized to equivalent skid resistance at 40 miles per hour called SN40R.

### Pavement Condition Indices

- **International Roughness Index (IRI):** The IRI average of both wheel paths measured in inches per mile and reported on a tenth mile interval as described above is used for analysis purposes.
- **Surface Distress Index (SDI):** The SDI is an index measured on a 0 – 5 scale which indicates the sum total of distresses observed in each tenth mile reporting interval and also accounts for the types, severities and extents of distresses like cracking, rutting, patching, shoulder deterioration and drop-off, concrete faulting, and concrete joint deterioration (an SDI = 5 is a perfect pavement with no distresses).

To determine pavement condition status, IRI and SDI are combined using the following criteria:

- Deficient (Poor): IRI > 170 **OR** SDI ≤ 2.4
- Fair: Combinations between the Deficient and Good categories
- Good: IRI < 95 **AND** SDI ≥ 3.5

To summarize the overall pavement network status, the PMS database is queried for each of the conditions above and the corresponding lane miles of each tenth mile segment are allocated to the appropriate category. The sums of the lane miles in each category are used to calculate percentages of the total network lane miles.



Analysis results of the NJDOT maintained pavements under the SJTPO jurisdiction is shown below for the 2011 data collection cycle. Table 7, below, summarizes the pavement condition data. In the SJTPO region, 46% the total DOT-maintained system lane-miles were reported in *Fair* or *Poor* condition in 2011, and more than 54% are ranked “*Deficient*”. When compared to previous years (Table 7), there has been a steady increase since 2008 in “*Deficient*” SJTPO pavements, and a steady decrease in pavements ranked “*fair*.”

**Table 7. Current Status of State Maintained SJTPO Pavements (Based on NJDOT 2011 Roughness & Distress Data).**

Source: NJDOT, Pavement Management and Technology Unit, April 25, 2012.

Condition	Road Miles (2 Directions)	Lane Miles (2 Directions)	% of Total System Lane Miles
Total Deficient	424.4	541.4	54%
Total Fair	267.8	315.3	31%
Total Good	93.0	146.9	15%
Total SJTPO Pavements	785.2	1003.6	100%

A multi-year comparison of the SJTPO pavement system is shown in Figure 11. The data indicates a concern, as the trend is moving to a worse state of repair of the area’s pavement conditions. If pavement conditions continue to deteriorate, the impact due to user cost will rise and comfort and capacity will degrade. The identification of the need for more funding to support pavement rehabilitation projects in the SJTPO region will be recommended in the Regional Transportation Plan.

**Figure 10. Pavement Conditions.**

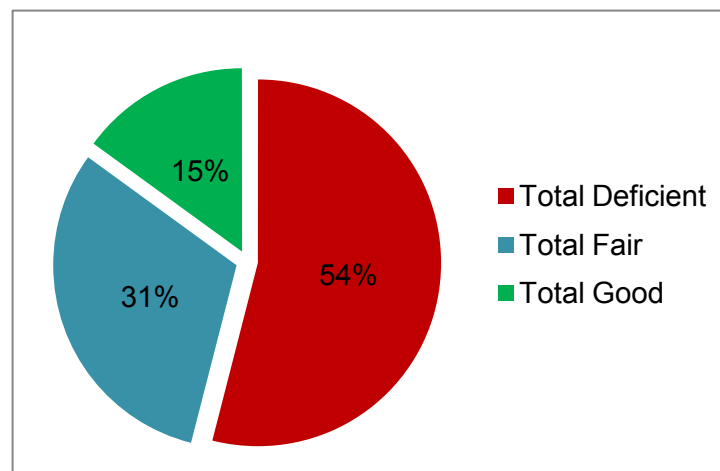
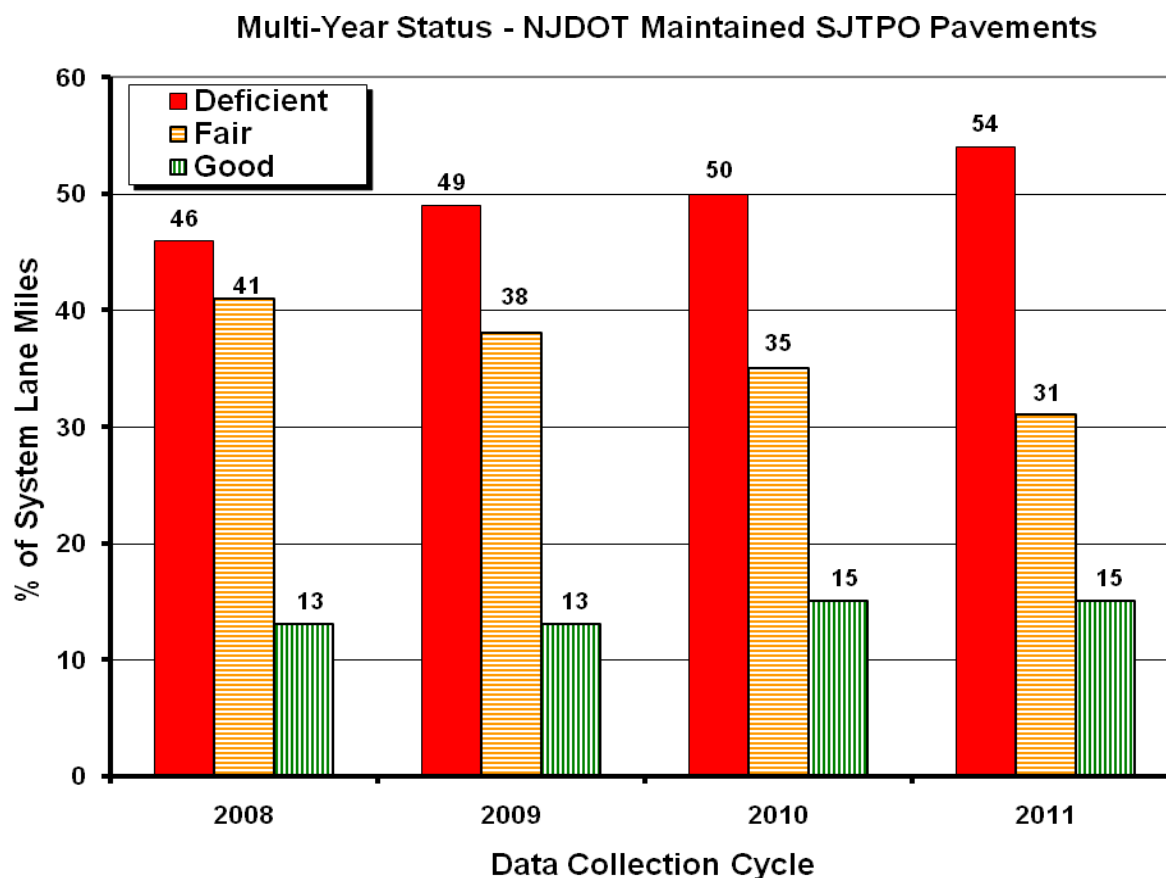


Figure 11. Multi-year Status of NJDOT Maintained Pavements in the SJTPO Region.



*Source: NJDOT Pavement Management System*

### **The SJTPO Asset Management System**

SJTPO is presently implementing an Asset Management System (AMS) throughout its region. This process will produce many benefits, the most important of which will be a more systematic project prioritization process. This decision support system allows engineers and other users to maximize the cost-effectiveness of system expenditures.

**Scope:** The SJTPO AMS will encompass 1,747 county and municipal roads. The system implementation involves collecting inventory and condition data on roadways, signs, signpost, and guardrails. In Cape May County manhole cover information will be included.

**Database:** The product that results will provide improved network visualization. The software will dynamically link the GIS-based pavement and other data, mapping capabilities, and road asset images.

**Analysis and Reporting Components:** The AMS software provides a variety of analysis and reporting tools to summarize road assets and their condition. As the system is implemented, a road asset inventory is developed; this documentation can serve as a record that the assets existed at the time of the inventory date. The road asset condition is also evaluated and a score is provided for pavements. This score is

reflected as a locally-developed Pavement Condition Index (PCI) that incorporates multiple road condition attributes.

The AMS is also a flexible tool for budgeting and estimating the cost of pavement improvement. An important feature is the locally-developed Repair Decision Tree. This feature allows for the input of projected response (repair types) for certain pavement conditions, and to incorporate their cost estimates for various repairs.

Given these inputs, the system can:

- Project pavement conditions under different budget and strategy scenarios
- Estimate funds needed to reach a particular condition goal.

The SJTPO AMS will be instrumental in future regional transportation planning and programming.

South Jersey Transportation Planning  
Organization

# Regional Transportation Plan 2040

## *Technical Appendix #5: Congestion Management Process*

SJTPO

July 2012

Version: July 16, 2012



5/23/12

# **South Jersey Transportation Planning Organization**

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Congestion Management Process

**Approved by the SJTPO Policy Board, May 21, 2012**

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## 1. Executive Summary

This report summarizes SJTPO's Congestion Management Process (CMP) activity for the current Fiscal Year of 2012. The goal for FY 2012 was to implement all the actions called for in the 2011 FHWA Certification Review. These six actions are listed below:

1. Establish a congestion management subcommittee of State and local partners
2. Determine performance measures
3. Identify data sources
4. Define geographic and system scope of regional transportation networks and congested corridors
5. Evaluate existing Transportation Improvement Plan (TIP) projects and future Regional Transportation Plan (RTP) projects regardless of mode and system through the CMP
6. Formally incorporate evaluation in the TIP prioritization process.

SJTPO has successfully completed all six actions; and will shortly have a fully defined and functioning Congestion Management Process, pending adoption by the SJTPO Policy Board. This section of the report displays the product associated with the completion of these four steps. The following table and map display the locations identified as most congested in the SJTPO region. The scores are a result of quantitative performance measures and qualitative input which will be explained in the actual report.

This CMP product will be considered during the development of the SJTPO Unified Planning Work Program (UPWP), the Transportation Improvement Plan (TIP) development and the RTP 2040.

Route Number	Begin Mile Post	End Mile Post	Score
US 40	52.260	53.850	148.4
NJ 47	46.800	47.050	140.0
NJ 77	1.682	1.900	139.3
US 130	3.000	3.100	138.2
NJ 50	19.840	20.910	135.8
NJ 47	42.000	42.500	135.5
US 40	57.100	57.280	132.6
NJ 47	42.900	44.200	130.0
US 40	46.600	46.970	129.7
US 322	49.300	50.200	129.7
US 9	12.400	13.000	128.8
NJ 77	3.610	3.900	127.9
US 130	3.400	3.650	126.2
US 40	48.900	49.610	121.3
NJ 47	4.900	5.000	119.0
NJ 47	41.300	41.920	118.1
US 9	12.000	12.200	116.1
CMAY CR 623 Roosevelt Blvd.	1.610	2.090	110.4
US 9	8.000	9.600	109.9
NJ 45	9.900	10.140	108.1
AT CR 651 Fire Road	8.060	8.460	Local Input

Figure 1. CMP Priority Locations Table



## SJTPO CMP Top Locations Spatial Analysis

This map displays the NJDOT Top V/C Count Locations that are also on a transit route. Also included is Fire Road between Tilton Road and Black Horse Pike, which is a qualitative data addition.

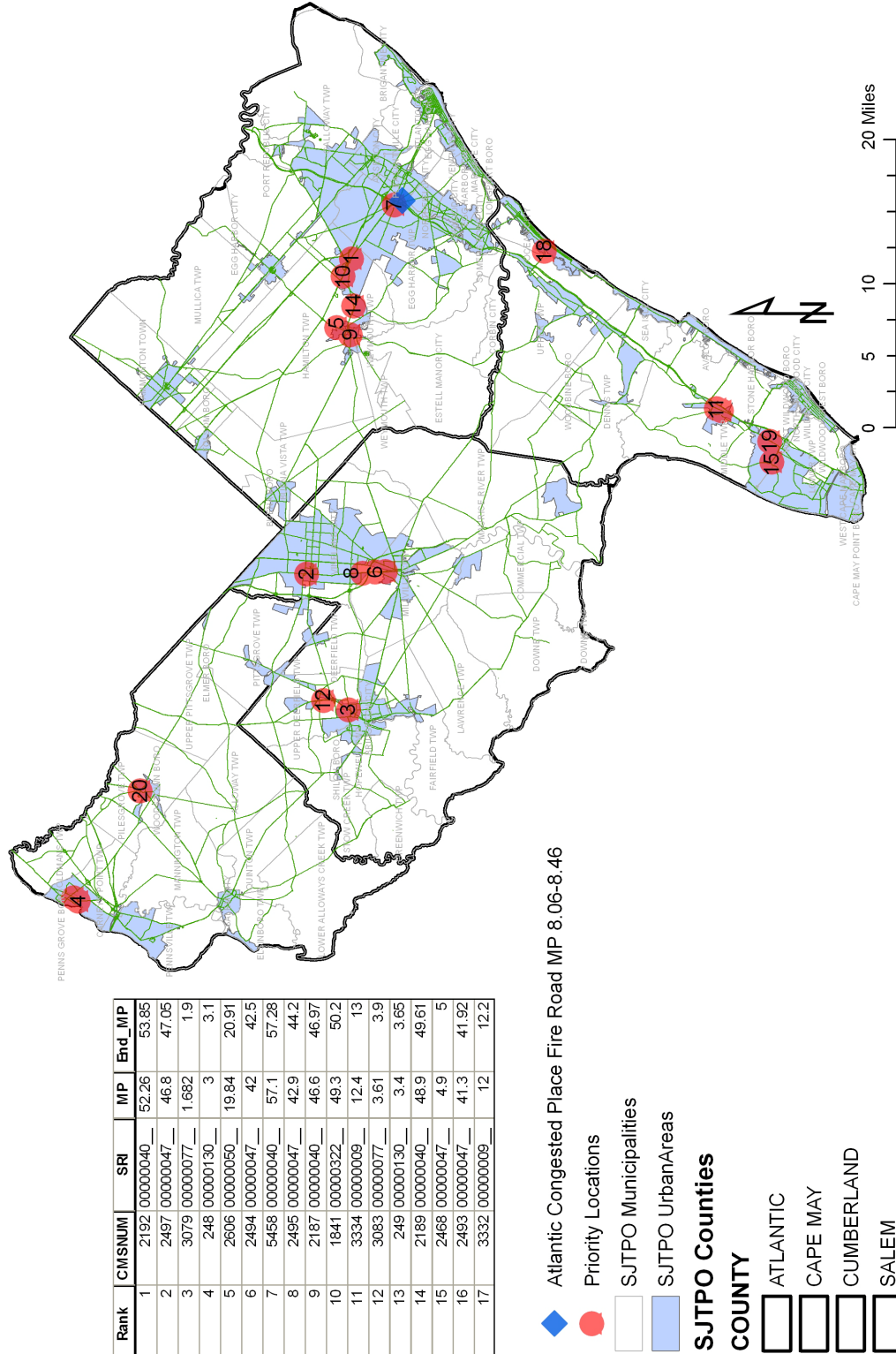


Figure 2. SJTPO CMP Top Locations Spatial Analysis

## 2. Introduction

The SJTPO is the Metropolitan Planning Organization (MPO) for the New Jersey four-county area of Atlantic, Cape May, Cumberland, and Salem Counties. Federal law requires that Transportation Management Areas (TMAs) such as the SJTPO construct and implement a CMP as part of their overall regional transportation planning process. The United States Department of Transportation (USDOT) provides detailed guidelines related to this requirement. The MPO must provide a process for effective management and operation of new and existing transportation facilities through the use of travel demand management (TDM) and operation management strategies.

The SJTPO CMP is one part of the entire regional transportation planning process. The CMP produces a prioritized list of locations, issues, or projects to be considered as input into the other parts of the SJTPO planning process.

As part of the 2011 Federal Planning Certification Review, the FHWA mandated that SJTPO develop and operate its CMP by the end of FY 2012. This mandate, in the form of a Corrective Action, was presented in six parts that are detailed in Section 3 of this report. Therefore, the purpose of this report is to address all six parts of the FHWA mandate by providing a summary of all CMP-related activity for the FY 2012 to date.

This report produces a product that concurrently meets the CMP requirements and is organized to reflect the six corrective actions.

### 3. Congestion Management Process Activity FY 2012

#### Program Highlights

This section describes the SJTPO CMP activity for FY 2012 thus far in response to the FHWA Certification Review's six Corrective Action steps.

#### A. Establish a congestion management subcommittee of state and local partners

The following was accomplished during FY 2012:

- Policy Board action established the Congestion Management Process Advisory Committee (CMPAC) on September 26, 2011. The CMPAC consisted of representatives from each of SJTPO's 4 counties, as well as the City of Vineland and other interested parties, including some private consultants.
- Extensive outreach was done to ensure community-wide representation.
- The first meeting of the CMPAC held on November 14, 2011, with additional meetings held on December 16, 2011 and February 27, 2012.
- With some amendments, CMPAC approved the approach that was subsequently approved by TAC.

*COMPLETED*

#### B. Determine performance measures

SJTPO CMP team members identified the following potential performance measures to be used to determine congested places for the region. Unless determined otherwise by the CMPAC, these are at the corridor level:

- Volume to Capacity Ratio—Primary Measure
- Total Delay as a Percentage of Total Travel Time—Secondary Measure
- To the extent possible, peak season and off-season performance measures The CMPAC recommended additional measures such as Level of Service, measures to determine non-recurring delay, and bike and pedestrian measures.
- In February 2012, the CMPAC determined that NJDOT V/C calculations provided the best coverage of the region. This was the primary performance measure for the FY 2012 CMP cycle. The SJTPO data collected for modeling purposes (V/C and time studies) was used to supplement this primary performance measure.

*COMPLETED*

### C. Identify Data Sources

The SJTPO CMP team identified possible data sources, which were subsequently approved by the CMPAC. These sources include:

- Traffic counts (2009-2011)
- Travel time and speed runs performed as part of the SJ Model Improvement Project (2011)
- The existing SJTDM (South Jersey Travel Demand Model)
- The NJDOT CMS Report for SJTPO Region; the latest report uses data from 2009

Additional information was used in the evaluation process, including:

- The NJDOT Congested Places 2011 Report.
- Local congestion observation
- Corridor Studies
- Road Safety Audits
- Transportation Improvement Program (TIP)

*COMPLETED*

### D. Define geographic and system scope of regional transportation networks and congested corridors

SJTPO CMP Team Members and CMPAC proposed an area of application and the definition of the system and network of interest. The following definition of the CMP geographic and system scope was approved at the November 14, 2011, CMPAC meeting, and is displayed on Figure 3, below.

- The proposed SJTPO CMP area consists of the 4-county SJTPO region of Atlantic, Cape May, Cumberland, and Salem Counties
- The November 2011 system definition: “All routes within the SJTPO four county region, of any jurisdiction, that impact regional travel.” These include: Roads within ¼ mile of a transit centers, Roads with transit service, Roads with bike paths, Evacuation routes, and Truck Routes.

Of special note, some corridors may be experiencing congestion as a function of weekend and seasonal patterns

*COMPLETED*

### E. Evaluate existing TIP projects and future RTP projects regardless of mode and system through the CMP

This evaluation will be finalized with the data sources listed below; a spatial prioritization of congested locations; and qualitative input.

The data sources include:

- Detailed volume data collected at strategic locations and times. Peak hour volume to capacity (V/C) information was calculated using this volume information and the road capacity data that was derived from the most recent travel demand model.
- Travel time studies, which included delay, completed along strategic corridors during spring 2011 and summer 2011.
- Median ridership data along strategic corridors provided by NJTransit. This allowed SJTPO to add the impact of delay on transit riders to its congestion analysis. These time studies and the transit ridership data were combined to produce total person delay calculations for the strategic corridors.
- Volume to Capacity of State Highway road segments; this data was collected by NJDOT for the state CMS.
- Congested Places identified by NJDOT; also, a list of the most congested places produced by NJDOT was vetted by SJTPO.
- The NJDOT Bureau of Safety Planning (BSP) – safety related reports
- Rutgers University Plan4Safety Crash Analysis

The spatial prioritization of locations begins with the V/C figures from the base data calculations. Next, additional factors are considered. These factors are rooted in the CMP Vision, Goals and Objectives, which come directly from the RTP Vision.

The top V/C locations are analyzed for their potential to contribute to other RTP goals in addition to mitigating traffic congestion. For example, looking at the SJTPO goal of *promoting transportation choices for the movement of people and goods*, if a congested location converged with bicycle, pedestrian, public transit, and/or freight facilities, it would have a higher priority than a location that solely covered a roadway facility. Taking another example, the goal of *improving transportation safety*: if a

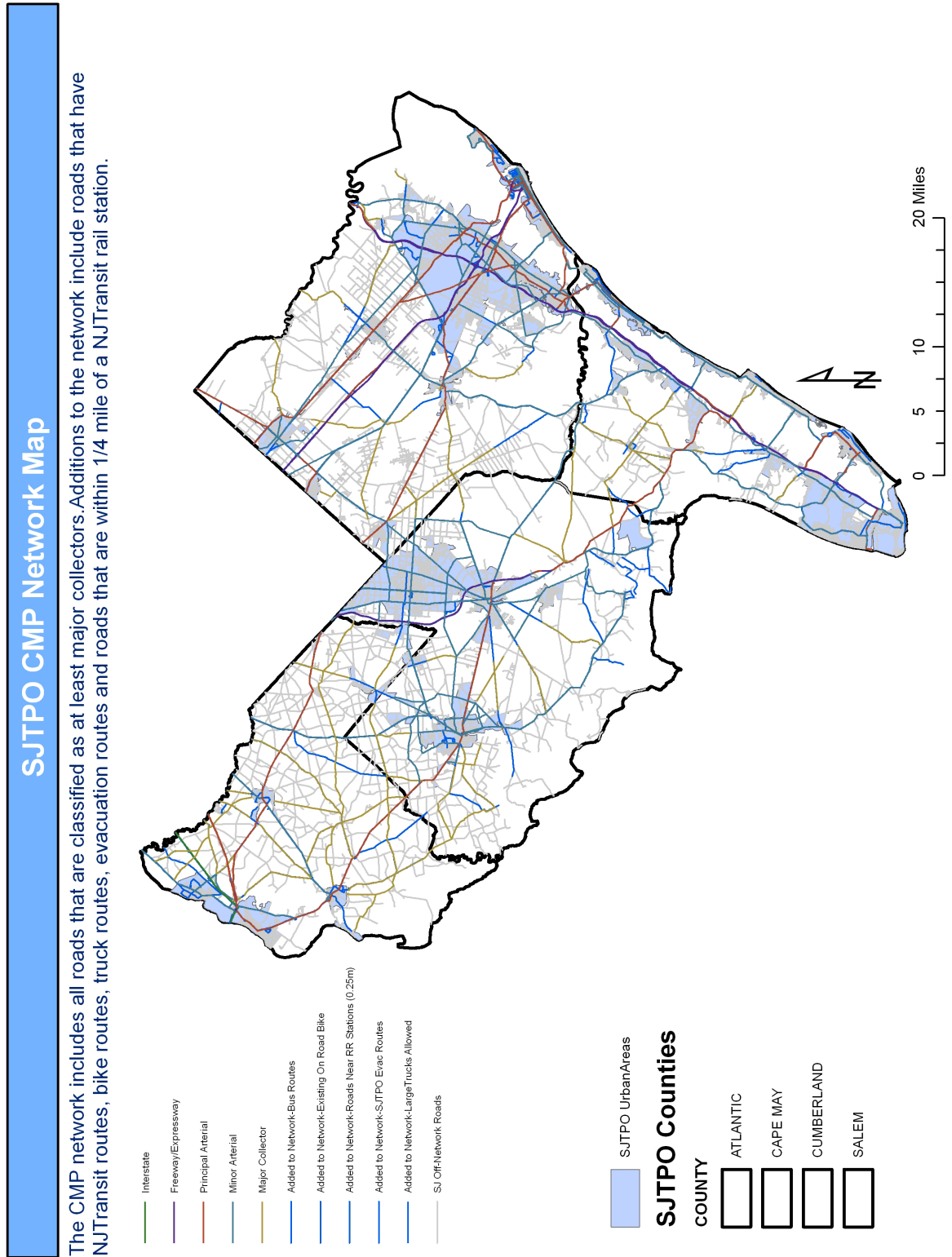


Figure 3. SJTPO CMP Network Map

congested location has a higher than average number of crashes, which we labeled as “a Crash Hot Zone”<sup>1</sup>, then it would have a higher priority than a location that was not a Crash Hot Zone. Figure 5, below, displays keywords from the CMP Goals; these goals, in turn, are derived from the most recent RTP.

Goal Key Words	Quantitative & Spatial Characteristics
Safety	Crash Hot Zones
Efficiency	V/C
Integration	Transit Station Proximity,
Multimodalism	Bike, Bus, Truck Route
Accessibility (variety of customers)	Bike, Bus, Truck Route
Appropriateness(contributes to quality of life)	See Section 3.E.
Responsibility (protects investment & environment)	See Section 3.E

Figure 4. Quantitative and Spatial Characteristics

A ranking system for the top locations was constructed which considered the above quantitative and spatial characteristics. Each top location was awarded a certain number of points based on the characteristics found at the location and their potential to contribute to our goals. Figure 6, below details the characteristics and the corresponding points awarded for that characteristic, as part of the spatial prioritization process.

Characteristic	Points	Description
Volume to Capacity: V/C	100	Add points that are equal to the V/C Ratio multiplied by 100.
Crash Hot Zones	10	Add 10 points if location was a hot spot for congestion related crashes.
Truck Route	10	Add 10 points if location is part of a truck route.
Evacuation Route	10	Add 10 points if location is part of an evacuation route.
Top Time Study Corridor	10	Add 10 points if location is part of a top time study corridor
Bike	10	Add 10 points if location is part of a bike route.
Bus	10	Add 10 points if location is part of a bus route.
Transit Station Proximity	10	Add 10 points for proximity to transit station.

Figure 5. Scoring System for CMP Locations

<sup>1</sup> More precisely, SJTPO has defined a “Crash Hot Zone” as a roadway segment that is 0.1 mile in length and had at least 5 same direction rear end (SDRE) crashes (the type of crashes most closely correlated with congestion) from 2010-2011.



The reasoning for utilizing these characteristics follows:

- A relatively high number of rear-end same directional crashes is an indicator of congestion. An improvement to a location that reduces these crashes will contribute to our congestion-related goal of safety. Therefore these types of crashes were reviewed at the top sites.
- The V/C rate indicates susceptibility to congestion. An improvement at a high V/C location may increase efficiency.
- Proximity to a transit center is an indicator of transportation system integration.
- Improvements to a location that is critical for bike, transit, freight, or evacuation, will likely contribute to our multimodal and accessibility goals.

The result of this spatial scoring process is displayed in Figures 6, 7 and 8, below.

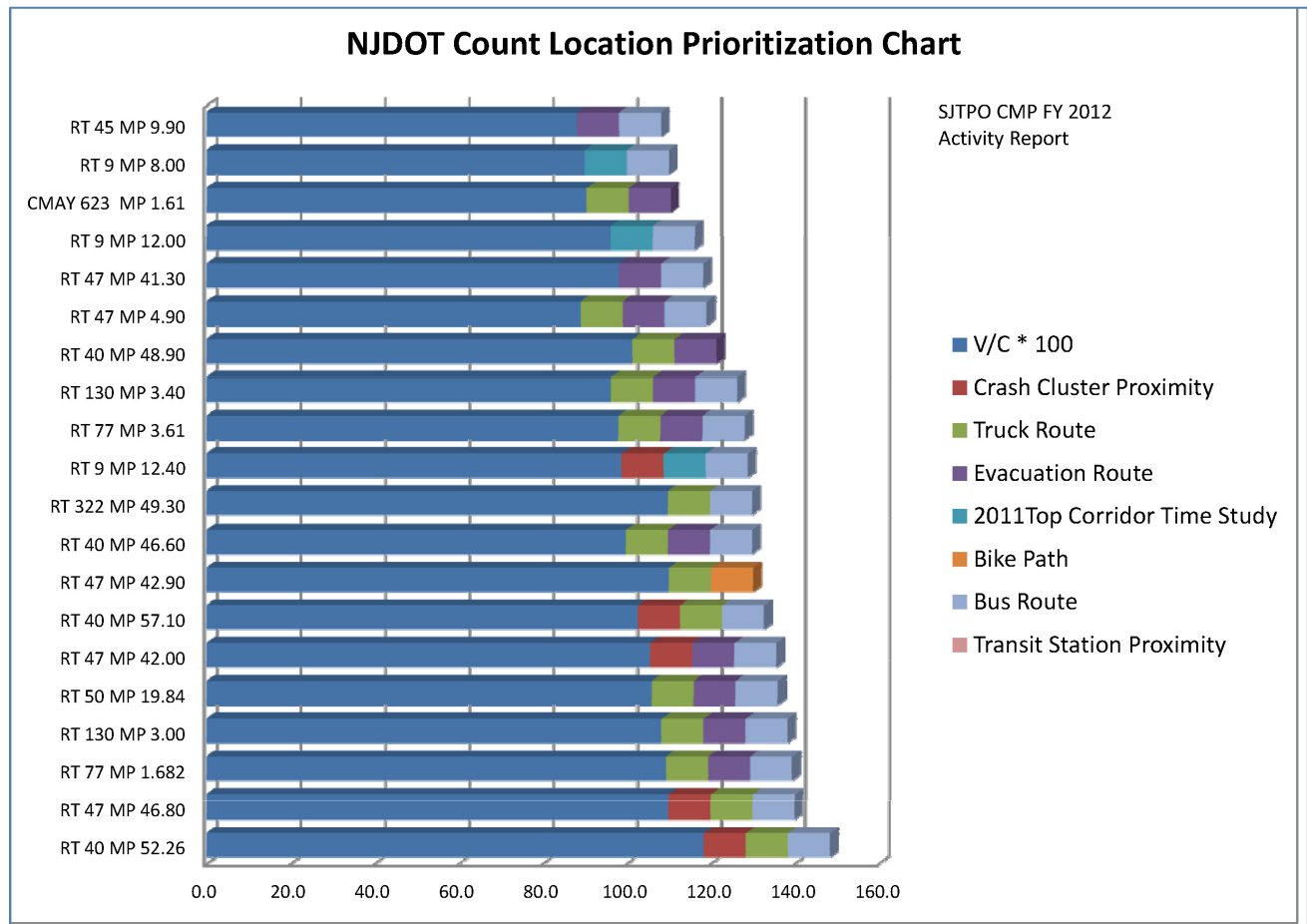


Figure 6. NJ DOT Count Location Prioritization Chart



## NJDOT Top 20 Count Locations, Ranked by Points

Prioritization Table for NJDOT Count Locations

Column:	1	2	3	4	5	6	7	8	9	10	11	12
	NJ DOT Identification: C MSNUM	Route	Mile Post	V/C * 100	Crash Cluster Proximity	Truck Route	Evacuation Route	2011 Top Corridor Time Study	Bike Path	Bus Route	Transit Station Proximity	Points
	2192	40	52.260	118.4	10	10				10		148.4
	2497	47	46.800	110.0	10	10				10		140.0
	3079	77	1.682	109.3		10	10			10		139.3
	248	130	3.000	108.2		10	10			10		138.2
	2606	50	19.840	105.8		10	10			10		135.8
	2494	47	42.000	105.5	10		10			10		135.5
	5458	40	57.100	102.6	10	10				10		132.6
	2495	47	42.900	110.0		10			10			130.0
	2187	40	46.600	99.7		10	10			10		129.7
	1841	322	49.300	109.7		10				10		129.7
	3334	9	12.400	98.8	10			10		10		128.8
	3083	77	3.610	97.9		10	10			10		127.9
	249	130	3.400	96.2		10	10			10		126.2
	2189	40	48.900	101.3		10	10					121.3
	2468	47	4.900	89.0		10	10			10		119.0
	2493	47	41.300	98.1			10			10		118.1
	3332	9	12.000	96.1				10		10		116.1
	4503	C MAY 623	1.610	90.4		10	10					110.4
	3329	9	8.000	89.9				10		10		109.9
	2287	45	9.900	88.1			10			10		108.1

## Notes for Columns 1-12:

- 1 The NJDOT permanent count locations were included in the analysis. These location are identified by NJDOT with a CMSNUM number.
- 2 This is the Count location Route Number.
- 3 This is the Count Location Beginning Mile Post.
- 4 The NJDOT Peak Period / Direction V/C figure was used to rank the NJDOT Count Locations. The top 20 locations are listed in this table. Column 4 displays the NJDOT Peak Period / Direction VC multiplied by 100.  
This gives each of the top 20 locations a certain number of points based on their V/C.  
The locations are also given other points based on the spatial characteristics described in Columns 5-11.
- 5 This column adds points if the count location is within 0.25 miles of a crash cluster.  
Crash types that were included in the analysis were same direction rear end crashes.
- 6 Points added if the count location was along a NJDOT Truck Route.
- 7 Points added if the count location was along a Evacuation Route.
- 8 Points added if the count location was along an SJTPO Top Time Study Corridor.
- 9 Points added if the count location was along an existing roadside bike path. .
- 10 Points added if the count location was along a bus route.
- 11 Points added if the count location was within 0.25 miles of an NJTransit rail station.
- 12 Total points added from Column 4 through Column 11.  
This table is listed in order of total points.

Figure 7. Prioritization Table for NJDOT Count Locations

## SJTPO CMP Using NJDOT V/C

This map displays the NJDOT Top 20 V/C Count Locations; the number displayed is priority of the location.

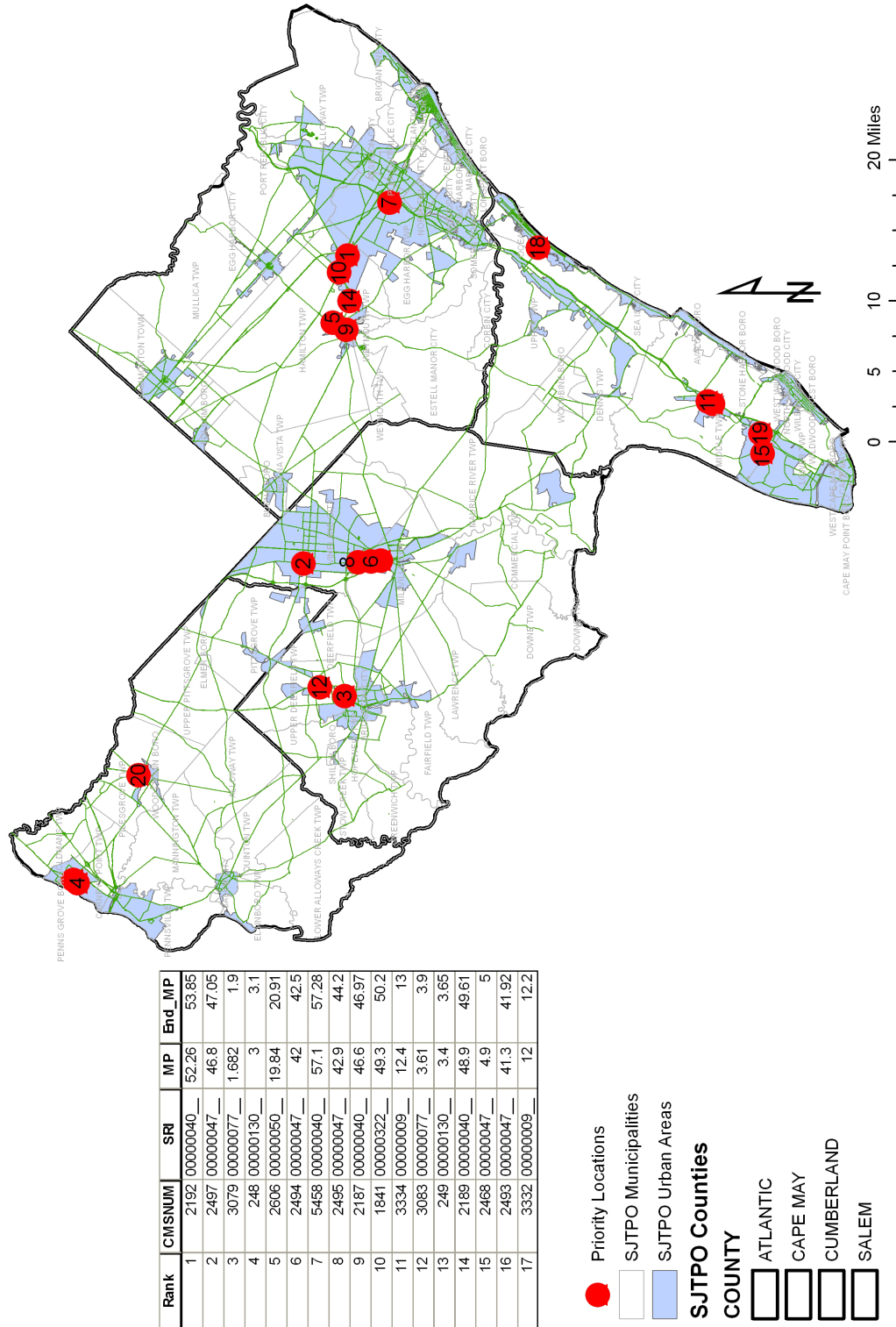


Figure 8. NJDOT Top V/C Prioritized Locations

This is not the complete list of congested locations. Additional locations can be added in the next step, which takes qualitative information into account. Other resources were reviewed in order to supplement the previously discussed quantitative and spatial analysis steps. These sources are identified in the following section.

The qualitative input was obtained from SJTPO's many planning partners and our participation in regional and statewide planning efforts. This knowledge is vital to the identification and prioritization of congested places. Some SJTPO CMP-related resources are:

- NJDOT Travel Demand Management team
- Cross County Connection – this Transportation Management Association promotes travel demand management information and outreach through its website, [www.driveless.com](http://www.driveless.com), as well as a regional ride-matching, trip planning program.
- Other qualitative resources include corridor studies, Human Service Transportation Plans, input from other Regional and State agencies, and local observations of congestion.

The addition of the Fire Road location, derived from this qualitative feedback, yielded the complete list of the CMP-identified congested locations displayed in Figure 1.

Figure 9, below, depicts the top 20 congested locations from Figure 1 overlaid onto a map depicting the location of current 2012-2021 TIP projects. While there are a few places where locations identified as “priority locations” do not coincide with the location of an actual TIP project, (most notably along the Route 40/US 322 corridor), it seems as though quite a few do. This would suggest that projects that are generated from SJTPO's current Project Selection Process and Ranking System are already addressing some highly congested areas, as identified in version 1 of our CMP.

*COMPLETED*

#### **F. Formally incorporate evaluation in the TIP prioritization process**

A revised Project Selection Process, incorporating CMP outputs, was presented to the TAC on April 9, 2012. Following further deliberations with the TAC, the Project Selection Process was presented to the TAC for its approval at the May 7 meeting and will be voted on by the SJTPO Policy Board at the May 21, 2012 meeting.

It is important to note that the CMP is an on-going process that evolves over time. The next section describes some of the key elements of future CMP activity.

*COMPLETED*



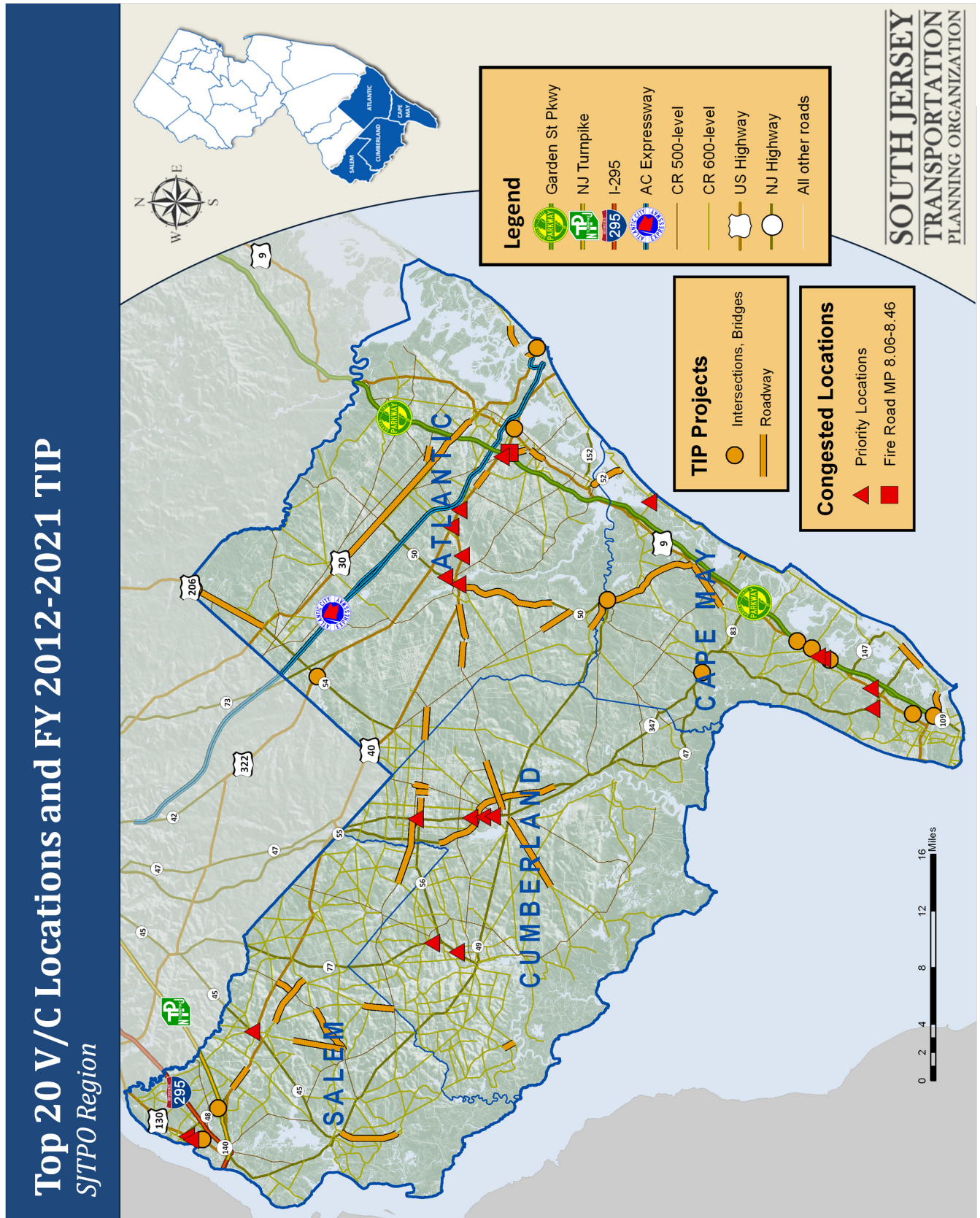


Figure 9 Top 20 V/C Locations and FY 2012-2021 TIP

## 4. The Plan for FY 2013 CMP Activity

SJTPO plans to enhance its CMP by taking the following steps in the future:

- Expand the number of V/C locations, using data available from the counties
- Utilize county speed data for locations. Locations with a relatively low average speed are potential candidates for efficiency improvements
- Conduct travel time studies for key corridors, and develop additional performance measures including delay as a percentage of total travel time
- Utilize expanded traffic volume data to better capture the weekend and seasonal fluctuation on state and county roads that are on the network
- Incorporate more NJTransit ridership data to capture the time cost of congestion.
- Develop metrics for congestion reduction.
- Better incorporate SJ CMP with the State CMP – Congested Places efforts
- Incorporate the updated SJTPO Travel Demand Model (TDM) –expected to be released in Spring 2012. The TDM projects congestion levels under various scenarios and predicts the impact of demographic changes and changes to the transportation network. Additional information and results of the modeling forecasts in the region will be available in the SJTPO Regional Transportation Plan 2040. The draft Regional Transportation Plan will be available to view and download on May 15, 2012 at the SJTPO website. The final RTP will be available to view and download after August 1, 2012.
- Update spatial data such as Urbanized Area information from the 2010 census data.

The approved FY 2013-2014 Unified Planning Work Program includes \$150,000 for data collection activities explicitly for Congestion Management Process support.

South Jersey Transportation Planning  
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# Regional Transportation Plan 2040

## *Technical Appendix #6: Financial Plan*

SJTPO

July 2012

Version: July 16, 2012



The FHWA and FTA developed and issued the Final Rule on statewide and metropolitan transportation planning and programming processes; this was published on the Federal Register on February 14, 2007. This report describes the steps taken by SJTPO to meet all of the Financial Plan-related FHWA requirements. This paper is organized based on Section II. *Questions and Answers portion of the FHWA Guidance on Financial Planning and Fiscal Constraint for Transportation Plans and Programs.*<sup>1</sup>

**1. The Financial Plan makes the following assumptions related to revenue sources that will be available to SJTPO for the RTP years of 2012 through 2040:**

The SJTPO Financial Plan is conservative in that it anticipates future expenditures at a level high enough to reasonably expect preservation of the current transportation system, and revenues at the current level only in real dollars.

**Years 2012-2021**

The FY12 SJTPO Transportation Improvement (TIP) serves as SJTPO's financial plan for the TIP years of 2012 through 2021. The Regional Transportation Plan 2040 (RTP or Plan) incorporates the TIP for this first ten year period of the Plan.

These FY12 TIP funds are available and committed to the SJTPO region for the projects and programs described in the TIP.

Because of this commitment, the TIP projects are eligible for an air quality conformity determination; and all TIP projects have met the air quality conformity requirements.

For the TIP period of 2012 through 2021, SJTPO does not expect any additional or alternative funding sources; nor does SJTPO plan for any additional projects or programs. Therefore no additional air quality conformity testing is required for RTP 2040.

The FY12 TIP expenditures and funding for projects and programs are expressed in Year-of-Expenditure dollar amounts. The proper inflation adjustment technique was applied.

**Years 2022 -2040 Expenditures**

SJTPO assumes that the FY12 TIP expenditure level will be necessary to preserve the current transportation network. The FY12 TIP expenditures are primarily for current network and program preservation. No SJTPO FY12 TIP funds are designated for true network or program expansion. It is reasonable to expect that this conservative approach will continue.

**Years 2022 -2040 Revenue**

For the RTP years beyond the FY12 TIP's scope (2021-2040), SJTPO has a reasonable expectation that the current TIP real-dollar funding level will remain intact. This projection is based on the historical trend established by past TIPs.<sup>2</sup> This assumption is reasonable in-light of New Jersey's current desire to maintain its infrastructure as evidenced by the preservation-orientation of the FY12 TIP. Preservation is also a goal for the New Jersey Long Range Transportation Plan, and the SJTPO RTP 2040.



The SJTPO RTP Financial Section does acknowledge the current fiscally-constrained environment in the State; however it is reasonable to expect that New Jersey will have the capability to at least maintain the current real-dollar transportation funding levels. This is a reasonable expectation due to the inherent revenue-generating potential for a state that ranks third in the nation for median household income.<sup>3</sup>

SJTPO is also making the conservative assumption that no additional or alternative funding sources will materialize.

Therefore, SJTPO does not expect any real-dollar change in revenues or expenditures during this period of 2022 through 2040 (which is the beyond-the-FY12-TIP scope years).

The SJTPO RTP also utilizes a Year-of Expenditure inflation adjustment factor for the projects and programs scheduled for the years 2022 through 2040 (which is the beyond-the-FY12-TIP scope years).

An inflation rate of 3 percent is utilized for the years 2022 through 2040. This expected inflation rate is in line with assumptions made by neighboring MPOs.

## **2. Reasonable and not reasonable forecast assumptions.**

All SJTPO RTP 2040 financial section assumptions are reasonable as described in the Federal Guidance. Certain assumptions may be reasonable under certain conditions; however, the SJTPO financial plan does not incorporate any of these new revenue sources. Therefore SJTPO does not need to specify why these revenue sources can be expected. These sources that are not applicable to SJTPO RTP 2040 are listed below:

- New toll or user fee.
- New State or local tax.
- Increase in gas taxes.
- New bond issue
- New ballot initiative
- Disproportionate federal discretionary program funding.

The SJTPO RTP 2040 does assume that revenue sources that are in place will be adjusted by the inflation rate. Therefore we are assuming that there will be a fare increase related to transit service. In order for this to be reasonable, there must be past historical success related to incrementally increasing the fares. There is historical evidence that NJTransit and the Authorities serving our region have historically been able to increase fares to keep pace with inflation.

The transit operator NJTransit has a proven history of obtaining FTA funds; therefore, it is reasonable to assume the current level of transit funding found in our current TIP will be available in Plan years that are beyond the present TIP.

### 3. Future Federal program fund assumptions:

SJTPO RTP 2040 is assuming that federal funding at the current levels will be available to SJTPO for the TIP and beyond-the-TIP Plan years of 2022-2040. This is a reasonable assumption because the funds meet the definition of available if it is based on an extrapolation of historical Federal funds that are distributed by formula. The following table depicts historical funding levels from SAFETEA-LU related to the Federal-Aid Highways Obligation Limitation. An increase of 3 % per year is a reasonable assumption in-light of this historical trend.

<b>FEDERAL-AID HIGHWAYS OBLIGATION LIMITATION (In \$ Millions)<sup>4</sup></b>					
<b>Federal Fiscal Year</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Limitation</b>	\$34,422	\$36,032	\$38,244	\$39,585	\$41,200
<b>Percentage Change</b>		4.68%	6.14%	3.51%	4.08%

### 4. Federal and Non Federal funding reflected in the TIP.

As required all projects and programs that are funded under Title 23 and 49 (US Code) are listed in the SJTPO FY12 TIP, and are thus incorporated into the SJTPO RTP 2040.

Capital investments in highways and transit systems are individually listed in the TIP; so too are federally funded investments in facilities used for maintenance and operations.

It is important that SJTPO demonstrate that Federal funds recipients in the MPO will maintain these programmed federal capital investments.

It is not necessary that SJTPO list in the TIP all non-federally-funded preventative maintenance; However, SJTPO is to demonstrate the region's commitment to maintaining the federally-funded capital investments. It is acceptable to present the non-Federal operations and maintenance (O&M) cost and their funding sources at a system-level. This is displayed in the table below:

<b>Regional Commitment to Maintenance of Federally-funded Capital Investments<sup>5</sup></b>			
<b>Entity</b>	<b>Cost Category</b>	<b>O &amp; M Cost<sup>6</sup></b>	<b>Funding</b>
Atlantic	2011 Infrastructure Improvements	\$8,300,000	\$1,300,000
Cape May	Upgrade Roads and Bridges	\$10,000,000	\$10,000,000
Cumberland	Road Rehabilitation Purchase of Equipment	\$8,671,000	\$8,671,000
Salem	Roads and Bridges	\$1,431,216	\$1,431,216
NJTA	Maintenance and Operations	\$13,255,164	\$13,255,164
SJTA ACE & ACY	Total Road Assets	\$1,850,000	\$1,850,00

Note that because of the compressed tight frame, these numbers, extracted from county budgets and the capital programs of these respective entities, are very preliminary and will continue to be refined.

Therefore, because of the local funding behind many of these O&M costs, it can be concluded that the SJTPO region is committed to maintaining the federally-funded infrastructure investments. The SJTPO TIP project-specific portion does identify the sources of Federal and non-Federal funding by year.<sup>7</sup> Also as required, the SJTPO TIP accurately reflects the federal and state funds that are reasonably expected to be available to SJTPO.<sup>8</sup>

**5. Detail of Cost and Revenue estimates to be reflected in the Year of Expenditure dollars.**

The cost and revenue estimates reflected in the TIP and Plan use an inflation rate to reflect the year of expenditure dollars. Generally the inflation rate for project cost can be tied to construction indices, while revenue tracks more closely with trends in tax receipts and cost of living indices.

SJTPO used the information listed below to develop the inflation rate used.

- Revenue: The average change for Federal Highway Trust fund outlay is 5.7% over the time period from 1957 through 2010.<sup>9</sup>
- Expenditures: The average change in the cost index is for 2007-2011 is 3.58%; and is forecasted to be 2.8% from 2012 to 2018.<sup>10</sup> This is using the Global Insight Highway and Street Cost Index.

Therefore, it is reasonable for SJTPO to use a 3% inflation rate for revenues and expenditures.

The financially constrained nature of the TIP and Plan is described in part 1 of this report. All Plan expenditures (except for those listed as Aspirations Projects) are attached to funds that are reasonably expected to be available. Therefore, it is not required to list additional or alternative revenue sources as mention in the Guidelines Section II-6 Paragraph 2<sup>11</sup>.

**6. Recommended Inflation Rates as part of the Fiscal constraint for TIPs or Plan.**

In absence of State and/or local data, FHWA and FTA recommend that a 4% inflation rate is used for project cost. This inflation rate applies only to planning/programming-level cost estimates. This is consistent with the conclusion in part 5 of this report. The SJTPO TIP will use more current and rigorous cost estimation for projects as they advance through project development. The TIP also uses cost estimate information developed in accordance with FHWA's major project requirements for projects over \$100 million.

**7. Possible approaches for developing cost estimates for financial plans.**

- SJTPO TIP capital costs are be based on historical costs for projects of comparable scale and design. The capital, operating, and maintenance cost are properly based on historic data.
- The Trns\*port CES cost estimation System was utilized when developing the TIP estimates.
- Major transit capital projects have been estimated using the appropriate FTA Standard Cost Categories.
- Costs are inflated through the period of the TIP (2012-2021) and for the Plan period (2040).

- Cost estimates prepared during project development will be incorporated into the project information contained in the TIP/STIP as well as the underlying financial plans, when the TIP/STIP is updated.
8. **Changes in revenue sources after the metropolitan transportation plan, TIP, or STIP are adopted, and the impact on FHWA/FTA fiscal constraint determination**

When revenue sources are altered after TIP or Plan adoption, SJTPO recognizes that the fiscal constraint determination is still in-effect. However SJTPO will properly reflect the changed revenue situation for any updated or amended metropolitan transportation plan, or TIP.

9. **Tools for cost estimation and management for "pre-construction" (i.e., transportation planning and programming) phases**

The cost estimation utilized in the SJTPO TIP is consistent with relevant guidelines such as

*Guidance for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction* (NCHRP Report 574);

*Right-of-Way (ROW) Methods and Tools to Control Project Cost Escalation;*

The National Transit Database (NTD), maintained by FTA;

Also, the SJTPO TIP will incorporate the upcoming FTA guidepost related to cost data on components of major capital transit investments (e.g., New Starts).

10. **The extent that highway and transit O&M are reflected in the TIP and metropolitan transportation plan.**

The Plan includes financial information containing systems-level estimates of costs and revenue sources. This system-level data is gleaned from available county and agency financial documents. The available documents utilize funding estimates that are reasonably expected to be available to adequately operate and maintain Federal-aid highways. SJTPO properly uses systems-level cost and revenue planning estimates for O&M, which are more general than estimates for individual projects.

The SJTPO RTP 2040 incorporates the longstanding Federal requirement that States properly maintain, or cause to be maintained, any projects constructed under the Federal-aid Highway Program.

11. **The extent innovative finance mechanisms and Federal funds transfers between programs are reflected in the TIP, metropolitan transportation plan**

The SJTPO Plan reflects only current sources of funding. The Plan supports the projects and programs with this traditional source of funding. There are no projects or programs that require an innovative financing mechanism.

The funding sources are:

FHWA: CMAQ	Match Funds	FHWA: Safety
FTA: JARC	Transportation Trust Fund	FHWA: SPR/PL
FTA: New Freedom	FHWA: Bridge	FHWA: STP-SJ
FTA: Section 5307	FHWA: CMAQ	FHWA: STP-Statewide
FTA: Section 5309	FHWA: Equity Bonus	Other Funds

FTA: Section 5310	FHWA: High Priority	Transportation Trust Fund
FTA: Section 5311	FHWA: NHS	
Casino Revenue	FHWA: Rail-Hwy Crossing	

There are some projects listed as Aspirational Projects in RTP 2040; however these aspirational projects are not being presented to the FHWA / FTA for the fiscally constrained determination.

Projects supported by transfers of Federal flexible funds are based on the original ("pre-flex") funding source. Furthermore, other projects supported by the pre-flex funding programs take the flexible fund transfer into account.

These funding sources are not included in the current FY 2012-2021 TIP.

- Advanced Construction considerations
- GARVEE/GAN debt service
- Public-private partnerships" (PPPs)
- Alternative Tolling/pricing strategies
- TIFIA statute
- Private Activity Bonds (PABs)

**12. Connection between financial plans that support statewide and metropolitan transportation plans and programs and financial/funding information for FHWA major highway projects and FTA major capital investment projects.**

The SJTPO RTP 2040 uses the underlying assumptions (e.g. local economic conditions; future inflation rates; revenue sources, growth rates, and yields based upon population and employment projections). These underlying assumptions are consistent with relevant major project-specific projections for our region.

**13. Cost bands utilized in the financial plan for the metropolitan transportation plan.**

Cost bands are not being utilized for the RTP 2040

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<sup>1</sup> [http://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.htm](http://www.fhwa.dot.gov/planning/guidfinconstr_qa.htm)

<sup>2</sup> [http://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.htm](http://www.fhwa.dot.gov/planning/guidfinconstr_qa.htm), Section II-1, paragraph 1.

<sup>3</sup> <http://www.census.gov/hhes/www/income/data/statistics/index.html>

<sup>4</sup> <http://www.fhwa.dot.gov/safetealu/factsheets/oblim.htm>

<sup>5</sup> [http://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.htm](http://www.fhwa.dot.gov/planning/guidfinconstr_qa.htm), Section II-4, paragraph 2.

<sup>6</sup> Sources of O&M Costs:

Atlantic County 12 Years Highway Report 2000-2012. Provided to SJTPO by Atlantic County. 4/18/12.

Cape May County Capital Budget 2011. Sheet 39b.

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Cumberland County 6 Year Capital Program 2011 to 2016. Sheet 39e.

Salem County. 2010 County Budget. Sheet 17.

New Jersey Turnpike Authority. 2012 Operating Budget. Operating and Maintenance Cost is 18% of total NJTA system to reflect mileage within SJTPO region.

South Jersey Transportation Authority. 2012 Capital Budget.

<sup>7</sup> [http://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.htm](http://www.fhwa.dot.gov/planning/guidfinconstr_qa.htm), Section II-4, paragraph 3.

<sup>8</sup> [http://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.htm](http://www.fhwa.dot.gov/planning/guidfinconstr_qa.htm), Section II-4, paragraph 4.

<sup>9</sup> <http://www.fhwa.dot.gov/policyinformation/statistics/2010/fe210c.cfm>

<sup>10</sup> <http://www.dot.ca.gov/hq/oppd/costest/Construction-Cost-Indices-and-Forecast-03-2012.pdf>

<sup>11</sup> [http://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.htm](http://www.fhwa.dot.gov/planning/guidfinconstr_qa.htm), Section II-5, paragraph 2.

South Jersey Transportation Planning  
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# Regional Transportation Plan 2040

## *Technical Appendix #7: List of Projects*

SJTPO

July 2012

Version: July 16, 2012





## TIP Projects and Programs, FY2012-2021

Section	ID	TIP Projects and Programs FY2012-2021	County	Type	FY12-21 (Millions)
II	S1116	Aetna Drive (CR649), Head of River Rd. to Main St.	Atl-LL	Blank	\$ 0.800
II	S0002	Middle Thorofare, Mill Creek, Upper Thorofare Bridges	Cap-LL	SPB	\$ 1.130
II	242	Rt. 50, Tuckahoe River Bridge (2E 3B)	Cap/Atl	SPB	\$ 20.460
II	244	Rt. 52, Causeway Replacement, Contract A	Cap	SPB	\$ 89.400
II	01339	Rt. 54, Rt. 322 to Cape May Point Branch Bridge	Atl	SPB	\$ 32.346
II	S0903	Almond Rd. (CR540), CR645 to Cumberland County Line	Sal-LL	SPH	\$ 2.191
II	S1112	Almond Rd. /Quigley Ave./Park Ave. (CR 540) to Rt. 47	Cum-LL	SPH	\$ 0.500
II	S0912	Bears Head Rd., Estell Ave. to Harley Ave., Repaving (CR552)	Atl-LL	SPH	\$ 1.250
II	S0910	Bears Head Rd., Repaving, Pittsgurg to Route 40	Atl-LL	SPH	\$ 1.550
II	S0913	Brigantine Blvd., Section IA, Repaving (CR638)	Atl-LL	SPH	\$ 1.500
II	S0914	Brigantine Blvd., Repaving, Section IB, Brigantine	Atl-LL	SPH	\$ 1.500
II	S1111	Broad St. /Mays Landing Rd. (CR552s/CR552) 7th to Menantico	Cum-LL	SPH	\$ 1.000
II	S1105	Buckshutem Rd./Maurictown Causeway (CR670)	Cum-LL	SPH	\$ 2.478
II	S1120	Cedarville Rd/Cedar St (CR610) Newport Rd to Main St.	Cum-LL	SPH	\$ 1.300
II	S1007	Centerton Rd. (CR553/CR611) from Landis to Salem Co. Line	Cum-LL	SPH	\$ 1.350
II	S1115	Cohansey-Friesburg Rd. (CR635) Pecks Corner to Remsterville	Sal-LL	SPH	\$ 1.000
II	S0506	Commissioner's Pike, Phase III Woodstown/Watson Mill Rd.	Sal-LL	SPH	\$ 1.400
II	S0610	Commissioner's Pike, Phase IV Woodstown/Daretown Rd.	Sal-LL	SPH	\$ 1.100
II	S0902	Corsons Tavern Rd. (CR628) Resurfacing	Cap-LL	SPH	\$ 2.000
II	S1004	Corsons Tavern Rd., Woodbine-Ocean View to New Bridge	Cap-LL	SPH	\$ 2.000
II	98543	Garden State Parkway Interchange Improvements	Cap	SPH	\$ 1.231
II	98543	Garden State Parkway Interchange Improvements	Cap	SPH	\$ 26.778
II	98543	Garden State Parkway Interchange Improvements	Cap	SPH	\$ 49.700
II	S0901	JFK Boulevard Reconstruction (CR625)	Cap	SPH	\$ 2.964
II	S1117	Jimmy Leeds Rd., College Drive to Pomona Road	Atl-LL	SPH	\$ 1.000
II	S1124	Landis Ave., Phase IV, Orchard Rd.(CR628) to Moyer St.	Cum-LL	SPH	\$ 0.659
II	S1123	Landis Ave., Phase II, West Ave. to Boulevards (CR615S)	Cum-LL	SPH	\$ 0.876
II	S0803	Landis Ave., Myrtle St. to Boulevards	Cum-LL	SPH	\$ 0.906
II	S1122	Landis Ave., Phase III, Coney Ave. to West Ave.	Cum-LL	SPH	\$ 0.720
II	S0915	Landis Ave., Union Rd. to Cumberland Co. Line, Repaving	Atl-LL	SPH	\$ 0.950
II	S0911	Landis Ave., Union Rd. to Tuckahoe Rd., Repaving	Atl-LL	SPH	\$ 0.900
II	S1106	Main St. (CR553) Strawberry Ave. to Rockville Rd. (CR657)	Cum-LL	SPH	\$ 2.000
II	S1109	Maryland Ave. Route 187 (Brigantine Blvd) to Pacific Ave.	Atl-LL	SPH	\$ 1.127
II	S1110	New Jersey Ave. (CR621) Rambler Rd. to 26th Ave.	Cap-LL	SPH	\$ 2.500
II	S1107	North Main Rd. (CR555) Park Ave. to Gloucester Line	Cum-LL	SPH	\$ 0.750
II	09337	Salem-Hancock's Bridge Rd., Phase III, CR 658	Sal-LL	SPH	\$ 1.000
II	S1121	Silver Run Rd. (CR627) Buckshutem Rd. to Dividing Creek Rd	Cum-LL	SPH	\$ 0.750
II	09361	South Inlet Transportation Improvement Project	Cap	SPH	\$ 13.536
II	S0907	Tilton Road, Burton to Cresson Ave., Repaving Section 4A	Atl-LL	SPH	\$ 1.000
II	S0909	Tilton Road, Cresson to Hingston Ave., Repaving Section 4B	Atl-LL	SPH	\$ 1.100
II	S1118	Tuckahoe Road, First Ave. to Rt. 50	Atl-LL	SPH	\$ 1.000
II	S1011	Valley Ave., Chestnut Ave. to Landis Ave.	Cum-LL	SPH	\$ 0.892
II	S1130	Valley Ave., Landis Ave. to Park Ave.	Cum-LL	SPH	\$ 0.810
II	S1113	Woodstown Rd. (CR 603) Commissioners Pike to Mannington	Sal-LL	SPH	\$ 1.220
II	S1114	Woodstown-Daretown Rd. (CR615) Daretown to S. Main St.	Sal-LL	SPH	\$ 1.600
II	S1008	YeGreate St. (CR623), Market Lane (CR641) to MP 0.80	Cum-LL	SPH	\$ 0.650
II	S0103A	Rt. 9, Northfield Sidewalk Replacement	Atl	SPH	\$ 1.225
II	11337	Rt. 30, Elmwood Rd/Weymouth Rd. (CR623) to Haddon Ave.	Atl	SPH	\$ 19.000
II	08371	Rt. 40, Atlantic County Drainage	Atl	SPH	\$ 11.100
II	10336	Rt. 40, MP 6.0 to MP 8.0, Pavement	Sal	SPH	\$ 3.900
II	2149F1	Rt. 47/347 and Rt. 49/50 Corridor Enhancement	Cap/Cum	SPH	\$ 7.800
II	02310	Rt. 48, Layton Lake Dam	Sal	SPH	\$ 5.200
II	11332	Rt. 50, Gibson Creek Rd. to Danenhauer Lane, Pavement	Atl	SPH	\$ 7.500

Section	ID	TIP Projects and Programs FY2012-2021	County	Type	FY12-21 (Millions)
II	10338	Rt. 50, N. of Rt. 9 to S. of Reading Ave. & Schoolhouse Rd.	Cap	SPH	\$ 2.894
II	11343	Rt. 55, Schooner Landing Rd. to New York Ave., Pavement	Cum	SPH	\$ 8.800
II	02313	Rt. 109, Garden State Parkway Intersection	Cap	SPH	\$ 4.000
II	93216	Rt. 130, Hollywood Avenue (CR618)	Sal	SPH	\$ 4.180
II	09331	Rt. 206, Bridge over Clarks Creek and Sleepers Brook	Atl	SPH	\$ 8.450
II	11393	Rt. 206, Rizzotte Dr. to the Burlington County Line	Atl	SPH	\$ 3.720
III	X065	Local CMAQ Initiatives	Var	O	\$ 18.000
III	X41A1	Local County Aid, SJTPO	Var	O	\$ 95.230
III	X98A1	Local Municipal Aid, SJTPO	Var	O	\$ 61.990
III	10347	Local Aid Consultant Services	Var	O	\$ 0.500
III	06326	Local Project Development Support	Var	O	\$ 0.700
III	X30A	Metropolitan Planning	Var	O	\$ 2.630
III	S044	SJTPO, Future Projects	Var	O	\$ 49.318
IV	11344	ADA Curb Ramp Implementation	Var	Blank	\$ 16.000
IV	08415	Airport Improvement Program	Var	Blank	\$ 50.000
IV	09316	Culvert Replacement Program -STATE	Var	Blank	\$ 20.000
IV	09316	Culvert Replacement Program -STP	Var	Blank	\$ 10.000
IV	09388	Highway Safety Improvement Program Planning	Var	Blank	\$ 40.000
IV	06327	Local Aid Grant Management System	Var	Blank	\$ 1.000
IV	08387	Local Bridges, Future Needs	Var	Blank	\$ 250.000
IV	07332	Minority and Women Workforce Training Set Aside	Var	Blank	\$ 10.000
IV	X200C	New Jersey Scenic Byways Program	Var	Blank	\$ 25.930
IV	06401	Pedestrian Safety Corridor Program	Var	Blank	\$ 5.000
IV	06403	Pedestrian Safety Improvement Design and Construction	Var	Blank	\$ 40.000
IV	04364	Rutgers Transportation Safety Resource Center (TSRC)	Var	Blank	\$ 13.000
IV	06402	Safe Streets to Transit Program	Var	Blank	\$ 5.000
IV	X72A	Betterments, Bridge Preservation	Var	BP	\$ 220.000
IV	01335	Betterments, Dams	Var	BP	\$ 3.500
IV	X72B	Betterments, Roadway Preservation	Var	BP	\$ 101.950
IV	X72C	Betterments, Safety	Var	BP	\$ 70.000
IV	03304	Bridge Deck Replacement Program - SJTPO	Var	BP	\$ 10.000
IV	03304	Bridge Deck Replacement Program - STATE	Var	BP	\$ 50.000
IV	X07E	Bridge Inspection, Local Bridges	Var	BP	\$ 10.550
IV	X07A	Bridge Inspection, State NBIS Bridges	Var	BP	\$ 10.750
IV	X70	Bridge Management System	Var	BP	\$ 4.000
IV	X08	Bridge Painting Program	Var	BP	\$ 170.000
IV	08381	Bridge Replacement, Future Projects - BRIDGE	Var	BP	\$ 733.810
IV	08381	Bridge Replacement, Future Projects - STATE	Var	BP	\$ 597.680
IV	98316	Bridge Scour Countermeasures	Var	BP	\$ 24.000
IV	98315	Bridge, Emergency Repair	Var	BP	\$ 300.000
IV	98319	Capital Contract Payment Audits	Var	BP	\$ 15.000
IV	99322A	Culvert Inspection Program, Locally-owned	Var	BP	\$ 45.000
IV	99322	Culvert Inspection Program, State-owned	Var	BP	\$ 8.000
IV	99372	Orphan Bridge Emergency Repairs - STATE	Var	BP	\$ 10.000
IV	X12	Acquisition of Right of Way	Var	CD	\$ 5.000
IV	04311	Asbestos Surveys and Abatements	Var	CD	\$ 5.000
IV	X180	Construction Inspection	Var	CD	\$ 78.850
IV	05304	Construction Program IT System	Var	CD	\$ 5.000
IV	X106	Design, Engineering Projects	Var	CD	\$ 52.000
IV	05342	Design, Geotechnical Engineering Tasks	Var	CD	\$ 2.500
IV	X75	Environmental Investigations	Var	CD	\$ 20.000
IV	03309	Environmental Project Support	Var	CD	\$ 3.000
IV	X137	Legal Costs for Right of Way Condemnation	Var	CD	\$ 16.000
IV	X30	Planning and Research, Federal-Aid - STP	Var	CD	\$ 60.000
IV	X30	Planning and Research, Federal-Aid - SPR	Var	CD	\$ 210.220
IV	X140	Planning and Research, State	Var	CD	\$ 10.000
IV	X10	Program Implementation Costs, NJDOT	Var	CD	\$1,141.000

Section	ID	TIP Projects and Programs FY2012-2021	County	Type	FY12-21 (Millions)
IV	10344	Project Development: Concept Development & Preliminary Eng.	Var	CD	\$ 50.000
IV	05341	Project Enhancements	Var	CD	\$ 1.000
IV	05339	Right of Way Database/Document Management	Var	CD	\$ 0.400
IV	05340	Right of Way Full-Service Consultant Term Agreements-STATE	Var	CD	\$ 0.500
IV	05340	Right of Way Full-Service Consultant Term Agreements-STP	Var	CD	\$ 2.000
IV	X150	State Police Enforcement and Safety Services	Var	CD	\$ 50.000
IV	06324	Statewide Traffic Management Information Program - EB	Var	CD	\$ 40.000
IV	06324	Statewide Traffic Management Information Program - STATE	Var	CD	\$ 2.000
IV	X66	Traffic Monitoring Systems - EB	Var	CD	\$ 129.100
IV	X66	Traffic Monitoring Systems - STATE	Var	CD	\$ 10.000
IV	X11	Unanticipated Design, Right of Way & Construction	Var	CD	\$ 355.664
IV	X101	Underground Exploration for Utility Facilities	Var	CD	\$ 2.000
IV	X126	University Transportation Research Technology	Var	CD	\$ 5.000
IV	X182	Utility Reconnaissance and Relocation	Var	CD	\$ 20.000
IV	02379	Congestion Relief, Intelligent Transportation-STATE	Var	CM	\$ 20.000
IV	02378	Congestion Relief, Operational Improvements	Var	CM	\$ 40.000
IV	03305	Intelligent Transportation Systems - EB	Var	CM	\$ 10.000
IV	03305	Intelligent Transportation Systems - STATE	Var	CM	\$ 5.000
IV	X28B	Park and Ride/Transportation Demand - CMAQ	Var	CM	\$ 80.000
IV	X28B	Park and Ride/Transportation Demand - STATE	Var	CM	\$ 10.000
IV	X230	Statewide Incident Management Program	Var	CM	\$ 58.000
IV	X43	Transportation Demand Management Program Support	Var	CM	\$ 2.300
IV	X142	DBE Supportive Services Program	Var	CS	\$ 5.000
IV	X197	Disadvantaged Business Enterprise	Var	CS	\$ 1.000
IV	X241	Electrical Facilities	Var	CS	\$ 54.460
IV	04324	Electrical Load Center Replacement, Statewide	Var	CS	\$ 20.000
IV	X15	Equipment (Vehicles, Construction, Safety)	Var	CS	\$ 100.000
IV	X29	Physical Plant	Var	CS	\$ 65.000
IV	X135	Pre-Apprenticeship Training Program for Minorities	Var	CS	\$ 5.000
IV	X82	Traffic Operations Center (South)	Var	CS	\$ 10.000
IV	04320	Traffic Signal Timing and Optimization	Var	CS	\$ 17.000
IV	X244	Training and Employee Development	Var	CS	\$ 18.000
IV	00377	Ferry Program	Var	IP	\$ 100.000
IV	X34	Freight Program	Var	IP	\$ 100.000
IV	01309	Maritime Transportation System	Var	IP	\$ 10.000
IV	01342	National Boating Infrastructure Grant Program	Var	IP	\$ 16.000
IV	99409	Recreational Trails Program	Var	IP	\$ 14.110
IV	99358	Safe Routes to School Program	Var	IP	\$ 55.870
IV	X151	Interstate Service Facilities	Var	LA	\$ 1.000
IV	X186	Local Aid, Infrastructure Fund	Var	LA	\$ 175.000
IV	X98Z	Local Municipal Aid, Urban Aid	Var	LA	\$ 50.000
IV	04314	Local Safety/High Risk Rural Roads Program	Var	LA	\$ 10.000
IV	02393	Transportation and Community System Preservation Program	Var	LA	\$ 4.000
IV	X239	Sign Structure Inspection Program	Var	QL	\$ 16.000
IV	X239A	Sign Structure Rehabilitation Program	Var	QL	\$ 10.000
IV	X239A	Sign Structure Rehabilitation Program	Var	QL	\$ 20.000
IV	X39	Signs Program, Statewide	Var	QL	\$ 20.000
IV	X107	Transportation Enhancements	Var	QL	\$ 100.000
IV	X185	Bicycle & Pedestrian Facilities/Accommodations - CMAQ	Var	RP	\$ 50.000
IV	X185	Bicycle & Pedestrian Facilities/Accommodations - STATE	Var	RP	\$ 10.000
IV	X154D	Drainage Rehabilitation & Improvements	Var	RP	\$ 40.000
IV	X154	Drainage Rehabilitation & Maintenance, State	Var	RP	\$ 95.540
IV	X196	Maintenance & Fleet Management System	Var	RP	\$ 10.000
IV	X51	Pavement Preservation	Var	RP	\$ 42.000
IV	X144	Regional Action Program	Var	RP	\$ 5.000
IV	X03E	Resurfacing Program	Var	RP	\$ 975.000
IV	99327A	Resurfacing, Federal - NHS	Var	RP	\$ 78.519

Section	ID	TIP Projects and Programs FY2012-2021	County	Type	FY12-21 (Millions)
IV	99327A	Resurfacing, Federal - STATE	Var	RP	\$ 261.180
IV	99327A	Resurfacing, Federal - SJTPO - NHS	Var	RP	\$ 80.000
IV	X242	Crash Reduction Program	Var	SY	\$ 3.850
IV	98333	Intersection Improvements Program - HSIP	Var	SY	\$ 30.000
IV	98333	Intersection Improvements Program - STATE	Var	SY	\$ 25.000
IV	X233	Motor Vehicle Crash Record Processing	Var	SY	\$ 40.000
IV	X35A1	Rail-Highway Grade Crossing Program, Federal	Var	SY	\$ 20.000
IV	X35A	Rail-Highway Grade Crossing Program, State	Var	SY	\$ 22.000
IV	X03A	Restriping Program & Line Reflectivity Management System	Var	SY	\$ 150.000
IV	04312	State Police Safety Patrols	Var	SY	\$ 10.000
IV	X47	Traffic Signal Replacement - HSIP	Var	SY	\$ 25.000
IV	X47	Traffic Signal Replacement - STATE	Var	SY	\$ 91.110
V	T552	New Freedom Program - Section 5317	Var	Blank	\$ 1.600
V	T06	Bus Passenger Facilities/Park and Ride	Var	E	\$ 0.560
V	T199	Job Access and Reverse Commute Program - Match	Var	E	\$ 2.800
V	T199	Job Access and Reverse Commute Program - Section 5316	Var	E	\$ 2.800
V	T210	Transit Enhancements (SEC 5307)	Var	E	\$ 0.490
V	T32	Building Capital Leases	Var	M	\$ 3.990
V	T68	Capital Program Implementation	Var	M	\$ 16.770
V	T515	Casino Revenue Funds	Var	M	\$ 24.040
V	T13	Claims Support	Var	M	\$ 1.400
V	T122	Miscellaneous	Var	M	\$ 0.350
V	T150	Section 5310 Program	Var	M	\$ 3.360
V	T151	Section 5311- Match	Var	M	\$ 4.410
V	T151	Section 5311 Program	Var	M	\$ 4.410
V	T05	Bridge/Tunnel Rehabilitation	Var	P	\$ 2.549
V	T111	Bus Acquisition Program (CMAQ)	Var	P	\$ 4.375
V	T111	Bus Acquisition Program (SEC 5307)	Var	P	\$ 8.770
V	T111	Bus Acquisition Program (State)	Var	P	\$ 88.352
V	T08	Bus Support Facilities and Equipment	Var	P	\$ 15.210
V	T09	Bus Vehicle and Facility Maintenance/Capital	Var	P	\$ 24.430
V	T16	Environmental Compliance	Var	P	\$ 2.100
V	T20	Immediate Action Program	Var	P	\$ 37.083
V	T53E	Locomotive Overhaul (STATE)	Var	P	\$ 1.365
V	T55	Other Rail Station/Terminal Improvements (STATE)	Var	P	\$ 3.754
V	T121	Physical Plant	Var	P	\$ 1.160
V	T135	Preventative Maintenance - Bus (SECT 5307)	Var	P	\$ 63.345
V	T39	Preventative Maintenance - Rail (SEC 5307)	Var	P	\$ 5.263
V	T39	Preventative Maintenance - Rail (SEC 5309)	Var	P	\$ 14.707
V	T34	Rail Capital Maintenance	Var	P	\$ 7.920
V	T53G	Rail Fleet Overhaul	Var	P	\$ 0.096
V	T112	Rail Rolling Stock Procurement (CMAQ)	Var	P	\$ 6.565
V	T112	Rail Rolling Stock Procurement (SEC 5307)	Var	P	\$ 12.370
V	T112	Rail Rolling Stock Procurement (SEC 5309)	Var	P	\$ 0.052
V	T112	Rail Rolling Stock Procurement (State)	Var	P	\$ 7.082
V	T37	Rail Support Facilities and Equipment	Var	P	\$ 2.450
V	T42	Track Program (SECT 5307)	Var	P	\$ 0.170
V	T42	Track Program (STATE)	Var	P	\$ 2.291
V	T300	Transit Rail Initiatives	Var	P	\$ 0.170
V	T508	Security Improvements	Var	S	\$ 1.820
V	T50	Signals and Communications/Electric Traction Systems	Var	S	\$ 1.360
V	T120	Small/Special Services Program (SEC 5307)	Var	S	\$ 10.200
V	T120	Small/Special Services Program (State)	Var	S	\$ 2.058
V	T88	Study and Development	Var	S	\$ 3.000
V	T500	Technology Improvements	Var	S	\$ 10.752
Total					\$9,440.153

## Locations of Interest

Priority locations for future transportation improvement projects were determined through geospatial analysis of two factors: congestion and safety (Figure 1). Congestion data was obtained from recent traffic counts in the SJTPO region. For each count, the volume-to-capacity (V/C) ratio was computed and used as a measure of congestion. Safety data obtained from Plan4Safety was used to compute safety scores for sections of roadways. Each accident counted toward the safety score with a weight proportional to the severity of the accident. A high safety score indicates a road segment that is relatively unsafe. From these measures of congestion and safety, locations of interest for future projects were selected. Table 1, below, lists Locations of Interest on county roads; Table 2, below, lists locations of interest on state and U.S. roads.

Additionally, a list of aspirational projects was compiled based on feedback from the counties. The following eight projects, shown in Table 3, were included in the Aspirational Scenario (see the *Scenarios* section of the Plan for more details). At this point, no funding has been identified for these projects. If funding becomes available, they will be amended into the Fiscally Constrained portion of the Plan and TIP.

Table 1. Locations of Interest, County Roads	
<b>County Rt. 575 Atlantic County</b>	Between Rt. 646 and Rt. 559 High safety scores along this route
<b>County Rt. 563 Atlantic County</b>	Between Rt. 585 and Rt. 575 High safety scores along this route
<b>Atlantic Avenue Atlantic County</b>	Between Maryland Ave and US 322 High safety scores along this route
<b>County Rt. 552 Cumberland County</b>	Between NJ55 and Rt. 555 High safety scores along this route
<b>Chestnut Avenue Cumberland County</b>	Between Rt. 555 and NJ 47 High safety scores along this route

<b>Table 2. Locations of Interest, State and U.S. Roads</b>	
<b>US 130 Salem County</b>	Between NJ48 and Turnpike/I-295 High V/C ratios
<b>NJ 49 Salem County</b>	Between Turnpike/I-295 and NJ45 High V/C ratios
<b>NJ 77 Cumberland County</b>	Between Rt. 540 and NJ49 High V/C ratios
<b>NJ 49 Cumberland County</b>	Near junction with NJ77, between Rt. 558 and Rt. 661 High V/C ratios and high safety scores
<b>NJ 47 Cumberland County</b>	Vineland, between NJ49 and north to county line High V/C ratios and high safety scores
<b>US 40/322 Atlantic County</b>	Between NJ50 and Atlantic City High V/C ratios and high safety scores
<b>US 30 Atlantic County</b>	Between US 9 and Atlantic City High safety scores along this route
<b>Garden State Parkway Atlantic County</b>	Near junction with ACE High V/C ratios and high safety scores
<b>US 9 Cape May County</b>	Near junction with NJ 47 High V/C ratios
<b>NJ 47 Cape May County</b>	Between NJ83 and US 9 High V/C ratios

<b>Table 3. Aspirational Project</b>	<b>Estimated Cost</b>
<b>Route 40/322 widening in Atlantic County<sup>1</sup></b>	\$310.685 million
<b>North Delsea Dr signal synchronization in Vineland</b>	n/a
<b>South Delsea Dr widening in Vineland</b>	n/a
<b>Landis Ave turning lane in Vineland</b>	n/a
<b>US 30 drawbridge replacement near Atlantic City</b>	n/a
<b>Glassboro-Philadelphia commuter rail project</b>	\$1.5 billion
<b>Route 55/47 widening in Cumberland County<sup>2</sup></b>	\$370.968 million
<b>Route 55/Sherman Ave., partial to full interchange</b>	n/a
<b>Atlantic City Rail Line improvements</b>	
<b>Extension of Burns Ave. from Main Rd. (CR 555) to Lincoln Ave. (CR 655)</b>	

<sup>1</sup>Estimated Costs based on:  
42 lane miles @ \$5 M/mile  
14 intersections @ \$4 M/intersection  
2 interchanges @ \$27 / interchange

<sup>2</sup>Costs based on:  
30 lane miles @ \$5 M/mile  
16 intersections @ \$4 M/intersection  
2 interchanges @ \$27 / interchange



Figure 1. Locations of Interest.

