

EXECUTIVE  
SUMMARY

# PLAN 2035

*Regional Transportation Plan for Northern New Jersey*



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**NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY**



# The NJTPA

The North Jersey Transportation Planning Authority is the federally authorized Metropolitan Planning Organization (MPO) for the 13-county northern New Jersey region. The federal government requires each urbanized region of the country to establish an MPO to provide local guidance over the use of federal transportation funding and to ensure it is spent cost-effectively to improve mobility, support economic progress and safeguard the environment.

The NJTPA oversees over \$2 billion in transportation investments every year. It analyzes transportation needs, approves proposed transportation improvement projects and provides a forum for interagency cooperation and public input into funding decisions. It also sponsors and conducts studies, assists county planning agencies and monitors compliance with national air quality goals.

The NJTPA serves the fourth most populous MPO region in the nation, with over 6.7 million people and 3.2 million jobs. The 13-county region covers 4,200 square miles, which is half the state's land area, and includes 384 municipalities.

The NJTPA Board consists of one elected official from each of the region's 13 counties: Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren; and its two largest cities, Newark and Jersey City. The Board also includes a Governor's Representative, the Commissioner of the NJ Department



*Sussex County Freeholder Susan M. Zellman*

of Transportation, the Executive Directors of NJ Transit and the Port Authority of NY & NJ and a Citizens' Representative appointed by the Governor.

NJTPA Board meetings are held bi-monthly and are open to the public. The meeting schedule can be found at [www.njtpa.org](http://www.njtpa.org).



*NJTPA Board of Trustees Meeting, Newark*

## PLAN 2035 EXECUTIVE SUMMARY

For more than two centuries, northern New Jersey has adapted to meet the demands of a changing economy and a growing population. In the late 19th century, the region evolved from a by-way between two major cities to become a major population center producing goods for the nation. Later, with shifts in national and global commerce, it became the East Coast's freight distribution hub and the home of office parks, corporate headquarters, world-class educational institutions and research facilities.

These changes have occurred in an incredibly diverse landscape that ranges from the famed Jersey Shore to the rugged hills in the region's northwest, spanning dense urban centers, wide open suburban townships and rural farming communities. Stitching together this landscape is an extensive transportation system—an intricate network of roads, rail lines, river crossings, marine channels, walkways and bikeways—which has continually been upgraded and expanded to meet the region's evolving needs.

Today, the region—like the nation—faces an uncertain and challenging future. A global economic crisis has disrupted a regional economy that generally has been vibrant for much of the last 20 years. The region's many assets—including an educated workforce and diversified business sector—remain largely intact and ready to form the foundation for a strong recovery. One of the most essential of these assets is the region's multi-modal transportation system, developed over more than a century.

With Plan 2035, the North Jersey Transportation Planning Authority (NJTPA, the federally authorized Metropolitan Planning Organization for this 13-county

region) once again looks to adapt and shape the transportation network to steer the region through the near-term economic downturn to a positive long-term future. The plan also seeks to address other critical challenges over the next 25 years, includ-



*Madison, Morris County*



*Metropark, Iselin, Middlesex County*

*The region's extensive, multimodal transportation system is a vital economic asset for the future.*

# NJTPA Goals

- **Protect and improve the quality of natural ecosystems and the human environment.**
- **Provide affordable, accessible and dynamic transportation systems responsive to current and future customers.**
- **Retain and increase economic activity and competitiveness.**
- **Enhance system coordination, efficiency and intermodal connectivity.**
- **Maintain a safe and reliable transportation system in a state of good repair.**
- **Select transportation investments that support the coordination of land use with transportation systems.**

ing developing livable communities while coping with climate change, achieving greater energy efficiency and providing mobility choices for travelers throughout the region.

## Foundation

Current uncertainties—economic, environmental and otherwise—make planning 25 years ahead more complicated than ever. But today’s choices will guide development of tomorrow’s transportation system—and doing nothing is not an option. A steady stream of investments must move towards construction in anticipation of future transportation needs. The NJTPA has long-established

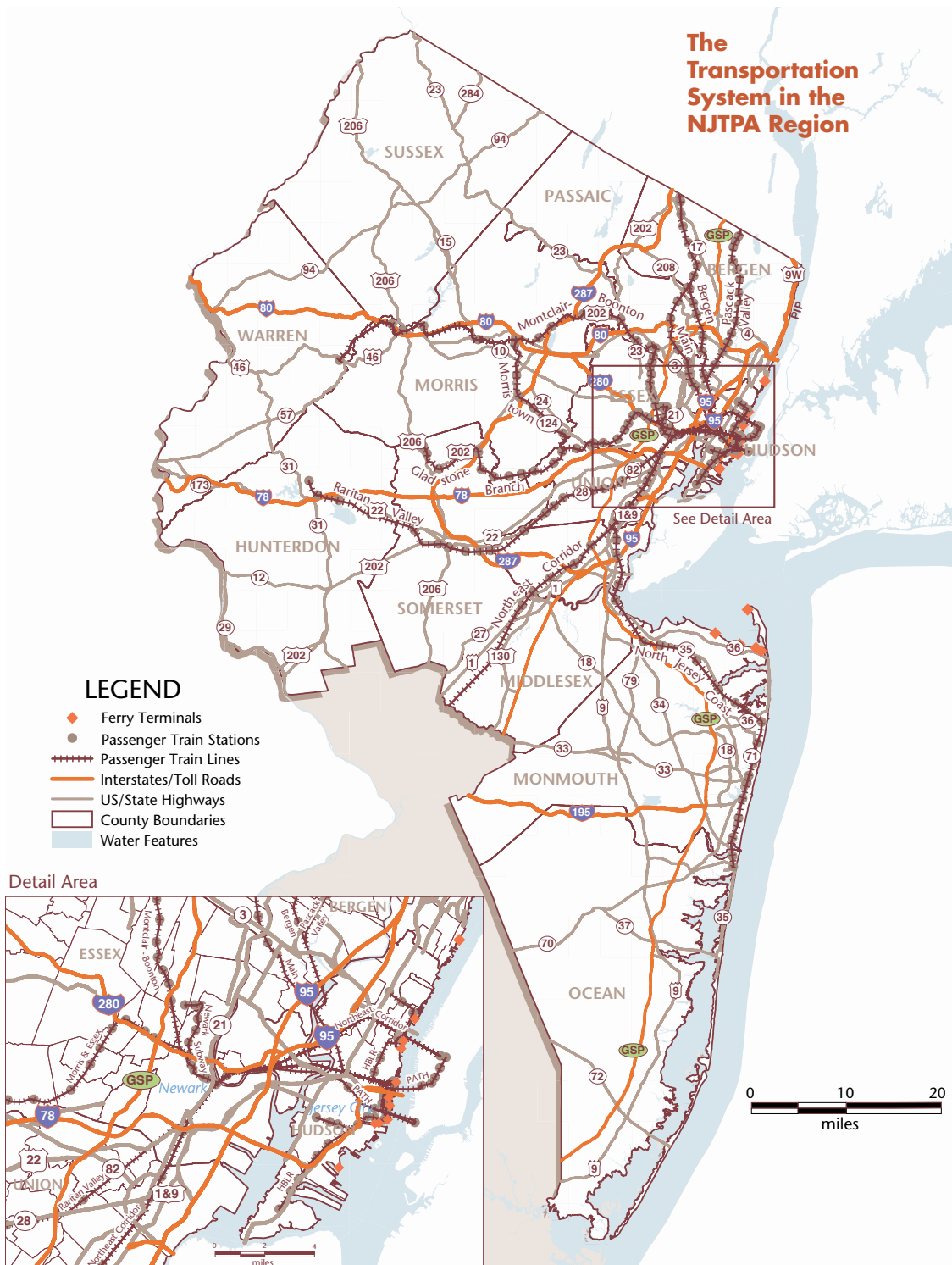
goals, shown above, to guide planning and investment decisions.

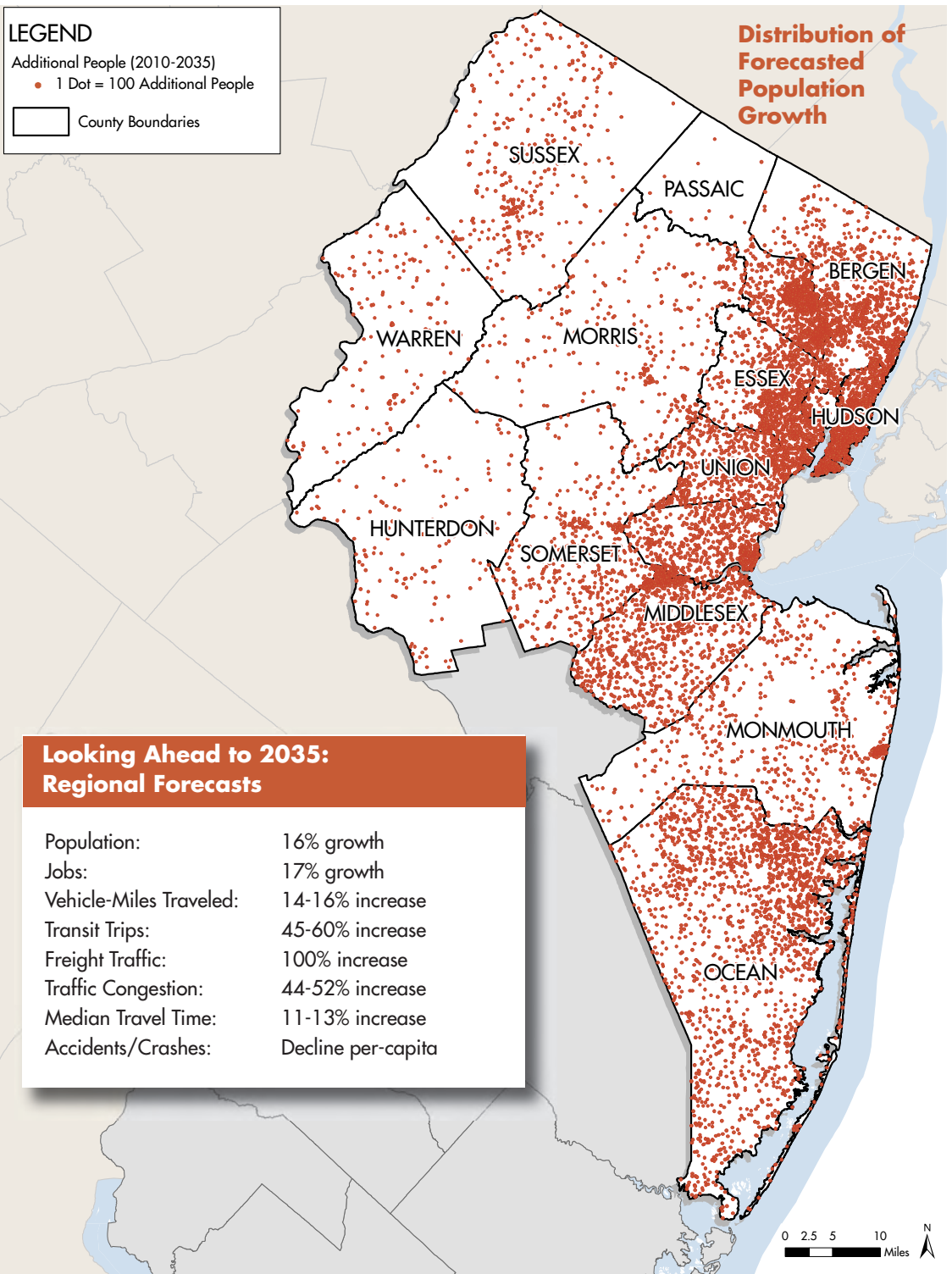
Failure to address the challenges facing the region could threaten the region’s near-term recovery and long-term vitality. This is especially the case when it comes to climate change—lack of progress beginning today could leave the region, nation and world facing an unprecedented environmental crisis in years to come.



*Route 3, Passaic County*







Congress has recognized the importance of long-range metropolitan transportation planning for meeting these sorts of challenges and charged MPOs with creating and updating long-range plans like Plan 2035. The NJTPA's goals and planning process are fully in keeping with federal guidance.

## NJTPA Regional Capital Investment Strategies

- **Promote smart growth rather than continued sprawl.**
- **Make travel safer and more secure.**
- **Give highest funding priority to maintaining and repairing existing infrastructure.**
- **Expand public transit where possible.**
- **Improve roads but limit capacity expansions.**
- **Move freight more efficiently.**
- **Better manage incidents and apply new transportation technologies.**
- **Support walking and bicycling.**

## Developing Plan 2035

Plan 2035 builds on the foundation of the NJTPA's previous long-range plan, Access & Mobility 2030. For that plan, the NJTPA Board of Trustees developed a strategy for investing future funding available to our region. This Regional Capital Investment Strategy and its eight key principles, shown above, remain central to Plan 2035.

In developing Plan 2035, the NJTPA explored new strategies and projects to achieve these principles in light of changing conditions and the unprecedented challenges facing our region. In doing so, the NJTPA drew upon insights gathered during extensive regional outreach, including a wide-ranging "visioning" process. This outreach gathered views from nearly a thousand individuals in every corner of the region and called on experts from around the state and nation to lead discussions on key issues. The NJTPA also conducted extensive technical analysis, including forecasting of trends and conditions and computer modeling of three future transportation scenarios. Throughout the development of Plan 2035, the NJTPA's active and committed Board of Trustees directed the process.



*Visioning workshop, Somerset County*



Hoboken Terminal, Hudson County

*New Jersey can expect to maintain its position among the nation's largest state economies.*

Plan 2035 thus represents the result of efforts to systematically analyze, assess and prioritize a host of options relating to the future of transportation in the region. The policies, projects and recommendations it presents are steps that will help safeguard the region's future.

## Transportation Challenges

Over the next 25 years, the region's transportation system will need to serve a population expected to grow to 7.8 million, an increase of 16 percent (1.1 million) from 2009. Employment also is projected to grow, reaching 3.7 million, an increase of 17 percent (515,000). At the same time, the transportation system will continue to serve a diverse and dynamic

economy. Growth may take a somewhat lower trajectory due to the lingering effects of the current downturn, but over the next 25 years New Jersey can expect to maintain its position among the nation's largest state economies. Despite its small size, New Jersey ranked eighth in Gross State Domestic Product in 2007. And most of the state's industry and employment is located in the 13 counties of the NJTPA region.

The coming decades are sure to see shifts in the nature of employment in the region. In addition to jobs supporting new technologies and "green" industries, experts suggest that higher global transport costs could push new manufacturing operations closer to population centers such as northern New Jersey. Whatever form these shifts take, the transportation system will see growing demands such as:

- The region's port, air cargo and distribution facilities will continue to move freight on a massive scale via roads, rails and waterways;
- The region's corporate, commercial and industrial facilities—mainly located in major cities like Newark and Jersey City, as well as along major roadway corridors—will continue to generate travel by millions of people each day, mostly by car in the suburbs but increasingly by transit in many denser locations;
- Participation in the larger metropolitan economy will require increased commuting across the Hudson River to and from New York City, nearly all by transit; and
- Non-work travel by residents and visitors as well as trips by those traveling through the state will add further burdens to nearly every transportation facility.



The NJTPA must prepare to meet these rising demands to avoid exacerbating today's problems. These include congested roadways, safety hazards for drivers and pedestrians, delays affecting goods deliveries, lack of access to rail and bus services, accelerating deterioration of the region's aging infrastructure and the ongoing effects of sprawl development.

Effectively responding to these challenges will depend in large part on the availability of transportation funding. And yet funding trends will likely follow the lower trajectory of economic growth itself. In addition, funding mechanisms now relied upon may not be adequate in the future. In particular, with an increasingly efficient auto fleet, the gasoline tax likely will yield declining revenues if kept in its current form and at current rates. In addition, there will be a need for a stable funding source for increased transit operations.



*Ridgewood, Bergen County*

## Scenario Planning

In creating Plan 2035, the NJTPA considered various levels of funding and investments in three future scenarios:

- A Baseline Scenario that continues current trends and funding levels.
- A Plan 2035 Scenario that includes increased funding and changes to regional land use to emphasize smart growth.
- An Aspirational Scenario with substantial funding increases and more extensive land use changes.

The Plan 2035 Scenario serves as the federally required, fiscally constrained investment plan for the region. Investments made under this scenario will maintain and moderately improve the system's "state of good repair" and improve performance to cope with increased travel while safeguarding future economic growth. Modeling suggests that the investments and strategies under the Plan 2035 Scenario can cut average daily vehicle delay by 5 percent, a small but significant amount given the projected increase in travel demand over coming decades.

Under the Plan 2035 Scenario, significant additional revenue from current or new funding sources will be needed to pay for investments. The Plan 2035 Scenario calls for a 1.2 percent annual increase in state funding and a 2 percent

*Growth in population and freight will place heavy demands on the region's roads and rails.*

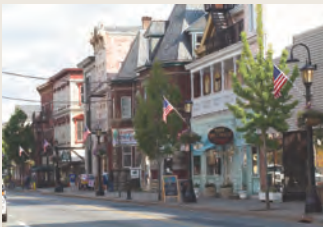
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# The NJTPA's Plan 2035 calls for . . .



## **. . . repairing and maintaining infrastructure**

Plan 2035's "fix it first" agenda makes preservation of the region's existing, heavily used transportation infrastructure the NJTPA's highest investment priority.



## **. . . encouraging smart growth and livable communities**

Under Plan 2035, the NJTPA calls for sustainable development that takes advantage of transit-oriented development, mixed-use centers and walkable neighborhoods to create truly livable communities.



## **. . . significantly increasing investment in regional transportation over the next 25 years**

Plan 2035 calls for increasing transportation investment by approximately 46 percent overall for the next two decades, with funding drawn from stable and dedicated state and federal sources to help pay for capital and operations costs.



## **. . . addressing climate change**

Plan 2035 sets the NJTPA on course to develop a regional greenhouse gas inventory, reduce transportation-related greenhouse gas emissions and prepare to adapt the region's infrastructure to cope with the effects of climate change.



## **. . . supporting "Complete Streets" throughout the region**

Plan 2035 encourages road designs and investments that make streets accessible and safe for all the region's residents and travelers, including pedestrians and bicyclists.

### **. . . dealing with road congestion through targeted investments**

Plan 2035 recognizes the limitations and constraints on building new roads and thus focuses on key system improvements to address problematic or missing interchanges, improve intersections and signalization systems and install Intelligent Transportation Systems (ITS) technology while making limited, selective expansions to the road network.



### **. . . expanding and enhancing public transit**

Plan 2035 includes construction of the Mass Transit Tunnel under the Hudson River, expansion of rail service in the region; improvements to the region's bus system through greater service, investments in bus priority treatments and Bus Rapid Transit; and provision of greater access to transit through shuttles and park-and-rides.



### **. . . making all modes of transportation safer and more secure**

Plan 2035 supports a range of safety investments, including improvements to interchanges and intersections, rural roads, pedestrian crossings, bicycle lanes, ITS and more, as well strategies, technologies and projects that help increase security on the transportation network and improve evacuation planning.

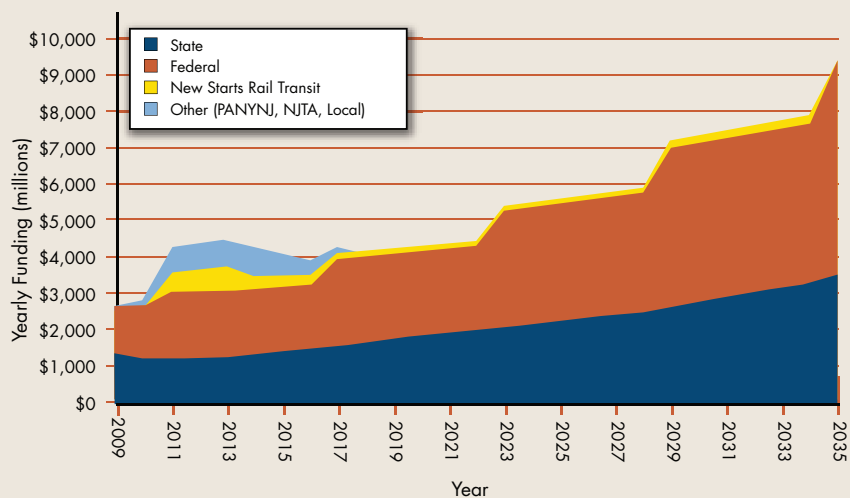


### **. . . facilitating multimodal goods movement to promote economic growth**

In Plan 2035, the NJTPA recognizes the importance of freight to the region's economy and calls for investments and policies that will help the region handle a projected doubling of cargo with multiple transportation modes, including more efficient truck shipment and a greater role for rail, air and marine freight.



### Annual Capital Funding for NJTPA Region: Plan 2035 Scenario (Year of Expenditure Dollars)



Under the Plan 2035 scenario, state and federal funding would increase slightly greater than the rate of inflation. The “bump” from 2010-2017 represents funding for the mass transit tunnel.

*Hard choices must be made to find funding to meet future investment needs.*

annual increase in federal funding in 2009 dollars. Taking into account an assumed inflation rate of 3 percent per year, the needed annual increases would be 4.2 percent in state funding and 5 percent in federal funding.

Total funding would increase from the current level of \$2.6 billion per year to more than \$7 billion per year by 2035, yielding \$141 billion in inflation-adjusted dollars over the life of the plan. The Baseline Scenario—which represents continued “business as usual”—would generate only \$92 billion.



Port Newark Channel

In 2009 dollars, these funding assumptions translate into \$91 billion for the Plan 2035 Scenario, compared to \$63 billion for the Baseline Scenario.

Plan 2035 discusses several ways to generate these sorely needed funds—extending the gas tax, instituting a mileage tax, using congestion pricing approaches, increased tolling and other methods. Reaching consensus on how to collect this revenue will be neither simple nor easy; participants in visioning workshops recognized the need for more funding for transportation, but they showed little agreement on the options.

Ultimately, the hard choices about how to pay for the



region’s long-term needs will be made by elected officials at the state and federal levels in coordination with NJTPA Trustees. Plan 2035 assumes that national and state leadership will provide the support needed to safeguard and improve the region’s transportation infrastructure—just as they have done time and again in the past.

Funding improvements at the levels described in the Aspirational Scenario would lead to significantly more progress. This approach would require increasing state funding by an average of 7.9 percent annually and federal funding by nearly 7 percent annually (both well above the assumed inflation rate). It would yield \$209 billion in inflation-adjusted dollars through 2035. With this funding, maintenance would consume a smaller portion of available funds, leaving more resources for expansions and improvements to the road and rail systems. This would boost transit trips by 60 percent and cut road delays by 8 percent from current levels.

As the hard choices about future funding are made, the impacts and opportunities under these various scenarios must be seriously considered.



*Pulaski Skyway, Essex and Hudson counties*

## **Plan 2035 Scenario—A Realistic Vision**

The investment agenda in the Plan 2035 Scenario is guided by the eight investment principles shown on page 5 and works toward making the regional vision a reality. Key initiatives include the following:

### ***Fix it First***

Maintenance, preservation and repair of the region’s extensive existing infrastructure is the top priority. Nearly two-thirds of available funding will go toward needed maintenance—particularly on the region’s bridges—that accumulates each year and removing safety hazards where they exist.

### ***Address Road Congestion with Targeted Investment***

To handle rising travel demand despite constrained funding, Plan 2035 emphasizes making the system more efficient. New technologies—Intelligent Transportation Systems (ITS) measures—offer great long-term promise for a “smarter” system. In addition, targeted capital projects—such as eliminating roadway bottlenecks, modernizing traffic signal systems, redesigning intersections, completing partial highway interchanges or creating new park and rides—can make the system more efficient even as demand rises.

*Investments in technology and targeted improvements can make roadways more efficient even as demand rises.*

Among the methods for identifying appropriate areas for improvements, the NJTPA's Strategy Evaluation process systematically examines needs in the region's varied "place types," tying land use to transportation to help identify needed projects and strategies. Beyond capital projects, new policies and incentives involving the state and the private sector can take advantage of latent capacity in the system—such as by shifting goods movement to off-peak hours.

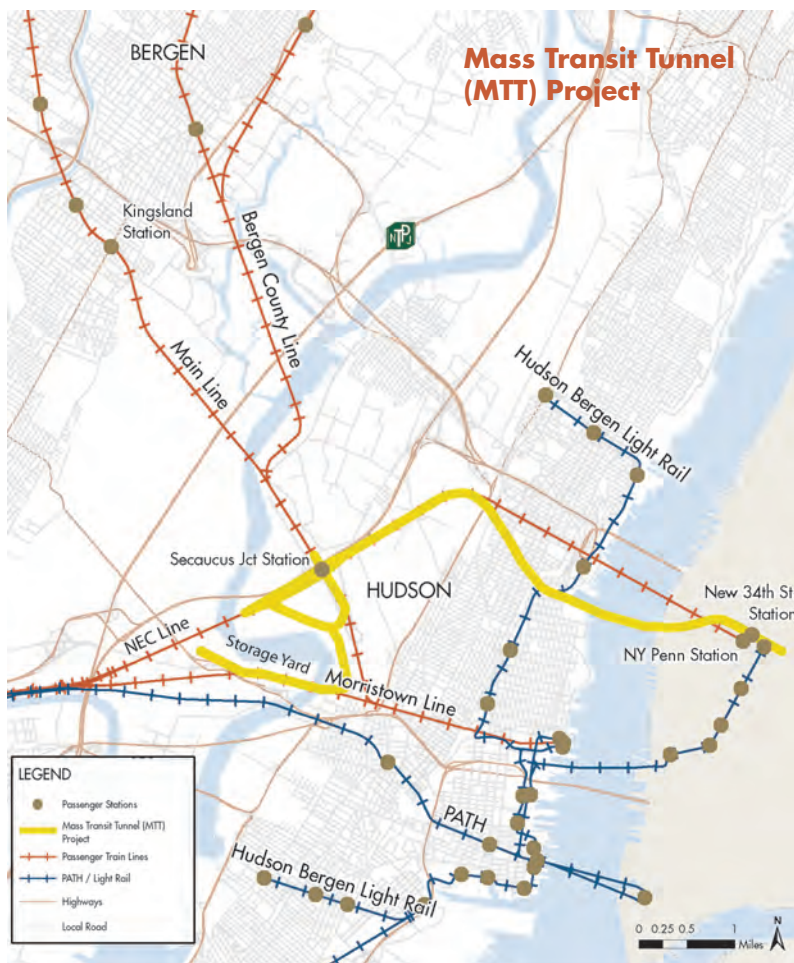
Even with a more efficient system, the region will need some additional capacity to meet rising travel demand. However, at visioning workshops participants almost universally recognized that the region cannot build its way out of congestion. Building new roads or adding lanes to existing ones is too expensive, the environmental impacts are too great and adding capacity historically has encouraged more driving and ultimately led to more congestion. For these reasons, Plan 2035 recommends very limited road expansion.

### *Enhance and Expand Rail and Bus Transit*

Plan 2035 makes enhancing and expanding transit a high priority. Added transit service brings many benefits by removing cars from the road, relieving development pressure on open space, improving air quality, enhancing energy efficiency, encouraging livable communities and reducing greenhouse gas emissions. Workshop participants throughout the region called for greater access to transit, particularly the rail network.

Completion of the \$8.7 billion Mass Transit Tunnel under the Hudson River (slated for 2017) will provide an extraordinary boost to regional transit. The tunnel will allow more frequent service and better connections for many riders, helping the region achieve a projected 42 percent increase in transit trips by 2035.

Working with NJ Transit, the NJTPA will fund additional enhancements to the transit network. Following comple-



tion of the tunnel, funding will be available for at least the initial operating segments of several proposed rail expansions. These will have to be carefully planned in concert with transit-oriented development and other land use measures to ensure ridership levels meet federal funding requirements for cost-effective operations. A stable source of operating funds at the state and federal levels will also be needed.

*Improved mass transit can help create more livable and sustainable communities.*

Buses carry the majority of the region's transit passengers, and an enhanced bus system must accompany any rail expansion. Over the life of the plan, the region should pursue innovative Bus Rapid Transit systems operating along dedicated and semi-dedicated rights of way. As with the highway network, there will also be opportunities to improve the efficiency of the transit network through application of ITS technologies, new rail signal technology and small-scale targeted projects.

In addition, the region must continue to look to the non-profit and private sectors to provide crucial support for the transit and additional alternatives to driving. In particular, Transportation Management Associations offer shuttle buses for access to the transit network as well as ridesharing and other services, many of which bridge the “last mile” between transit and employment sites. In addition, private bus carriers provide heavily used express buses and the region's ferry services provide flexible capacity and routes for commuter access to New York City.

### *Encourage Smart Growth and Livable Communities*

The greatest long-term gains in transportation efficiency will be made by modifying land use patterns in the region in keeping with smart growth goals. This will require a steady shift away from the auto-oriented sprawl of the past.



*Morristown Station, Morris County*



*Go Bus, Newark*

Plan 2035 encourages communities to pursue sustainable development that will reduce fiscal, environmental and other impacts. The plan recognizes that more compact development—especially if it provides and supports options for transit use and better accommodates walking and bicycling—significantly reduces greenhouse gas emissions, uses energy more efficiently and reduces trip distances and the need for driving. All of these factors make for more livable communities.

During Plan 2035 outreach, the public voiced general support for smart growth measures, including higher density development and a greater mix of

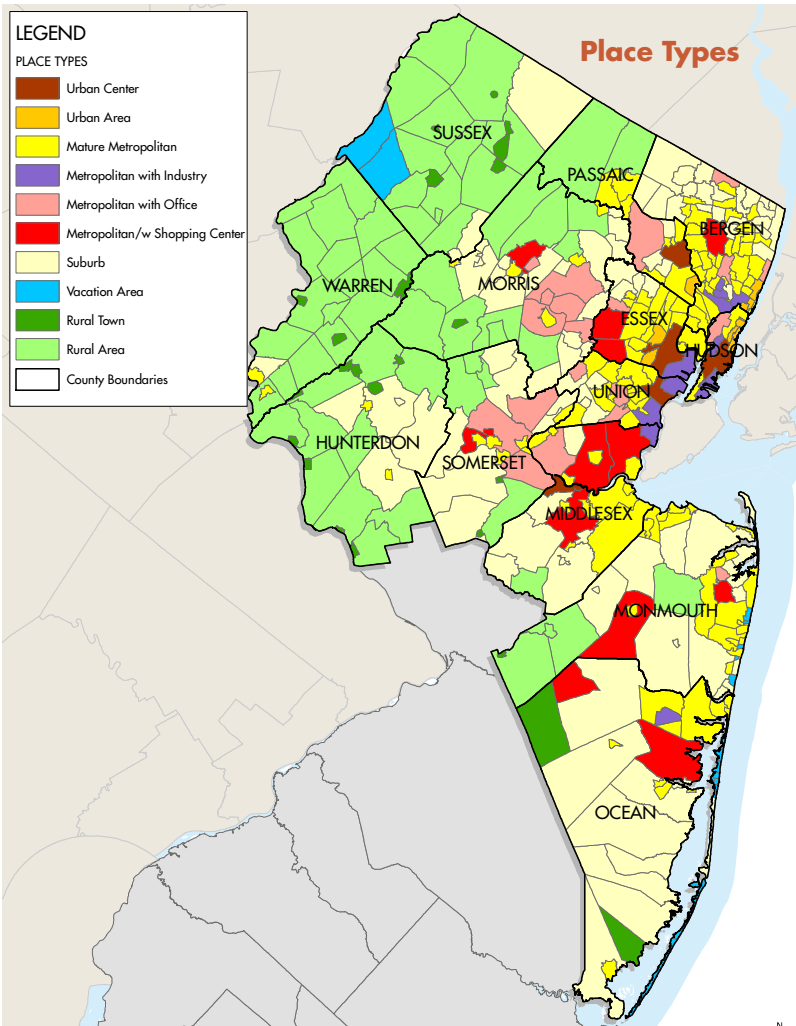
land uses. At the same time, however, there were concerns that certain changes might drastically alter the character of communities. Nevertheless, the region must make continued, measured and decisive progress towards smart growth in the years to come.

Smart growth also encompasses environmental protection. Plan 2035 seeks to preserve open space and natural resources in ways that are consistent with the region’s economic health. This includes working with regional development agencies charged with stewardship of natural resources including the Highlands Council, the Meadowlands Commission and the Pinelands Commission, ensuring wise and balanced investments.

### *Address Climate Change and Energy Efficiency*

Transportation represents the largest single source of greenhouse gas (GHG) emissions in New Jersey, accounting for more than a third of the state’s total emissions. New vehicle technologies and a switch to alternative fuels may reduce greenhouse gas emissions substantially over the next 25 years, but at the same time the region must work to reduce the miles of vehicle travel.

In Plan 2035, the NJTPA has strengthened



*Recognizing that northern New Jersey is a diverse region with varying land uses and features, the NJTPA uses a system of “Place Types” to help identify investments that will both support appropriate development and best address mobility needs.*



its investment principles to include a commitment to working to meet the requirements of the state's Global Warming Response Act. This will prepare the region to address emerging federal requirements on greenhouse gases.

Yet even as steps are taken to reduce greenhouse gas emissions, it is expected that the region's infrastructure may soon face the impacts of climate change. Rising sea levels and more severe weather could mean that bridges, roads and other infrastructure—much of it along critical evacuation routes—will suffer increased flooding and deterioration. Some infrastructure may need to be adapted or rebuilt to withstand the impacts of climate change. The NJTPA's commitment to planning for climate change will help address these issues.

Closely related to the challenge of climate change is the need to improve the region's energy efficiency, including reducing dependence on fossil fuels. The brief yet intense spike in gasoline prices in 2008 gave the public a glimpse of the disruptions and hardships that can result from higher oil prices if greater energy efficiency is not achieved.

New Jersey has established a goal of meeting 20 percent of the state's energy needs through energy efficiency and conservation gains by 2020. Plan 2035 is committed to supporting that goal within the transportation sector through measures such as promotion of smart growth, increased transit investments and prioritization of investments that encourage energy efficiency.



*Clinton Reservoir, Highlands Region, Passaic County*

*Plan 2035 looks to reduce greenhouse gases and prepare for the possible impacts of climate change.*



*Green Village, Morris County*

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## The Future

With a view to the lessons of the past and with wide input from the region's residents and officials, Plan 2035 charts a realistic, achievable course through the current economic uncertainties toward renewed growth and progress. The marketplace ultimately will determine the shape of the region's economy over the next 25 years. Yet, as has long been the case, transportation infrastructure will provide the crucial foundation that allows the region's businesses, citizens and communities to pursue new opportunities.



*Interstate Route 78, Somerset County*

The transportation investments and policies in Plan 2035 offer the prospect of many benefits over the next 25 years: a broad-based and sustainable economic recovery; more energy efficient development in cities, towns and suburbs; support for new technologies and practices that will help meet the challenges of climate change; new employment in green industries; protected environmental resources, and many others.

One critical key to all these benefits will be the extensive and adaptable transportation system that for centuries has been one of northern New Jersey's most vital economic assets. Implementation of Plan 2035 will see that it remains so far into the future.

*Plan 2035 was Adopted August 2009*

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## **North Jersey Transportation Planning Authority, Inc.**

One Newark Center, 17th Floor  
Newark, New Jersey 07102

Tel: 973 639 8400 • Fax: 973 639 1953  
[www.njtpa.org](http://www.njtpa.org)