



STATEWIDE TRANSPORTATION PLAN

2001-2025

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EXECUTIVE SUMMARY

Federal and state laws require that the State's transportation program align with a long-range strategy in the Statewide Transportation Plan (SWTP). This plan is updated every five years and maintains a minimum 20-year horizon. The current update of the Plan was initiated in 1999 and will extend the Plan to the year 2025.

The Department worked with nationally recognized consulting firms in the development of the statewide transportation plan. The consultants utilized their experience and state-of-the-art information management and analytical tools in developing alternative program scenarios, evaluating impacts and producing the Plan update.

The update of the Plan studied the existing transportation systems, forecast future economic conditions and projected travel demand for each transportation mode. Measures were used to quantify the sufficiency of system performance. The Plan considered anticipated growth patterns for the State and the impact of growth on transportation needs. This analysis was used to forecast travel demand and to determine the kinds of improvements necessary to maintain a high level of service for the State's transportation network over the next 25 years.

The principal findings of the Statewide Transportation Plan update are as follows:

- There has been progress since the last update of the Plan in the following areas: system preservation, safety, economic development, system operations, innovative financing in critical project categories and coordination with public/private partners.
- Georgia's robust economic growth will continue and translate into increased demand for transportation services. Vehicle miles of travel (VMT) represent the total amount of travel by all vehicles on all roads. It is forecast to grow by 60 percent over the next 25 years. The growth rate is expected to be higher outside of the Atlanta region due to an anticipated growth in Atlanta's transit ridership which is the keystone of the Atlanta Regional Commission's (ARC) 2025 Regional Transportation Plan.
- Transit ridership is projected to double due primarily to the expected increase in ridership in metropolitan Atlanta. The development of commuter rail programs, outlined in the Governor's Transportation Choice Initiative, will also contribute to the growth of transit ridership, adding 2,000,000 commuting trips annually.
- Rural transit ridership would triple with increased investment to meet projected needs.
- The number of air passengers is projected to more than double by 2025. The increase will occur mostly at Hartsfield International Airport.

- Freight movements to, from and through Georgia are forecast to increase by 63 percent by 2025. While the use of non-highway modes – air, water, and rail – will increase, trucking will still account for 83 percent of freight shipments.
- Revenue available to fund GDOT’s 2025 plan, under current policies, is estimated at \$36 billion over the 25-year time period. This is not enough to finance programs the Department of Transportation has already committed to nor those that have been identified as needed to address future transportation demands.
- Major investments in all modes of transportation will be needed to maintain mobility of the citizens of Georgia. Lacking adequate funding, there will be deterioration in current levels of system performance, including pavement quality, average speed and accidents.
- The Plan identifies major areas for policy decisions. The recommendations are consistent with the State’s transportation mission that focuses on maintenance of the system, safety, mobility, economic development and environmental quality.
- The Governor has announced a program for Transportation Choices Initiative. This effort will make available innovative financing to advance and finance critical projects. With this effort, significant projects, already identified in the Statewide Transportation Plan, can be developed and implemented on an accelerated schedule. Using advanced financing does not alleviate the need for additional funding which the Plan has identified. The issue remains that additional funding is needed to continue the development and operation of a quality multimodal transportation system.

GEORGIA STATEWIDE TRANSPORTATION PLAN

2000-2025

1. STATEWIDE TRANSPORTATION PLAN BACKGROUND

The Statewide Transportation Plan (SWTP) is part of a strategic planning process managed by the Georgia Department of Transportation (GDOT). It builds on the FY 2002 Strategic Planning process completed in 2001, and on the 20-year (1995-2015) statewide transportation plan – *Intermodalism ... Bringing Transportation Together* – completed in 1995. The Plan is also a response to federal regulations and state law that require the Department to maintain a long-range plan for state transportation improvements. This SWTP update addresses the statewide transportation needs, resources, and programs for the 25-year period from 2000 through 2025.

The Plan update represents an opportunity to review the state’s blueprint for future development of the intermodal transportation system. The review includes an assessment of how the transportation system functions today, identifies future demand for transportation, analyzes changes in the economy that may require special attention and evaluates plans to improve the system. The Plan update is not intended to be a project programming document. Rather, the plan sets forth a vision for the future with goals and policies to guide transportation planning and decision-making over the next 25 years.

The Plan update is consistent with GDOT’s vision statement developed during the Department’s strategic planning process and reaffirmed in the public involvement sessions conducted for the Plan update:

“Georgia’s transportation system will always be a vital component of the state’s future success and ability to compete in a global economy. Our team of motivated professionals and quality driven management will maintain and improve mobility by providing a safe, seamless, intermodal and environmentally sensitive transportation system. Through transportation leadership and wise use of human and financial resources, innovative technology, public/private partnerships, and citizen input, we will ensure a balance of transportation options so that people and goods arrive at their destination in a timely and efficient manner.”

The plan follows Georgia and federal requirements for statewide transportation plans. Title 32 of the Georgia Code (Section 32-2-3) requires GDOT to develop a comprehensive, statewide 20-year transportation plan. As required, the plan takes into account “future as well as present needs,” and “all possible alternative modes of transportation.” It also considers “the total environment of the community and region including land use, state and regional development goals and decisions, population, travel patterns, ecology, pollution effects, esthetics, safety and social and community values.”

Federal regulations (23 Code of Federal Regulations, Part 450 Section 214) require states to prepare a statewide transportation plan covering a period of at least 20 years.

Federal guidance in development of the SWTP calls for consideration of key factors as defined in the Transportation Equity Act for the 21st Century (TEA-21). The goals of the SWTP update are fully consistent with federal requirements. The plan also evaluates future funding availability and the resources needed to carry out recommended policies and programs. The federal regulations require that the plan “reference, summarize or contain information on the availability of financial and other resources needed to carry out the plan.”

The SWTP update complies with all of these requirements. It further serves as a comprehensive guide for the development of modal studies and corridor plans. These include the *Georgia Statewide Aviation System Plan, Georgia Statewide Bicycle and Pedestrian Plan, Central Georgia High-Priority Six Corridor Study, State Route 316 Corridor Study and HOV System Study*. The Plan update was developed in close coordination with the metropolitan areas in the state including regionally developed economic and travel demand forecasts.

1.1 THE REPORT CARD

Progress since completion of the previous Statewide Transportation Plan has been impressive. The purpose of the Transportation Report Card was to assess progress in meeting the goals established in the 1995 Statewide Transportation Plan. The report card summarizing this evaluation used performance measures identified by stakeholders who participated in the development of the current Plan update.

Georgia’s road transportation network is recognized nationally. The Department has been the recipient of numerous awards for design, materials and innovation underscoring the quality of the system facilities and their utility to the state. As shown in Figure 1, Daily Vehicle Miles of Travel (DVMT) has been growing at a very rapid annual rate of 4.5 percent since 1980 and has approximately doubled during the past two decades. This trend is expected to continue. Accommodating this rapid growth in travel demand by both maintaining a first class roadway network and providing transportation choices has been and will continue to be the major challenge facing the Department.

Funding of transportation programs has followed the directions established by the 1995 Plan. The results of this investment can be seen in Table 1 below which presents a summary of the performance of the transportation system.

As shown in this table, the transportation report card indicates that there has been progress in areas of system preservation, safety, economic development, mobility and access, funding for critical project categories, and coordination with stakeholders, other agencies and the public. Major issues that emerged from this analysis (shown in *Italics* in the table below) are that traffic congestion and air quality are still a problem in some parts of the state, in part due to the state’s booming economy and rapid population growth.

Figure 1. Growth in DVMT

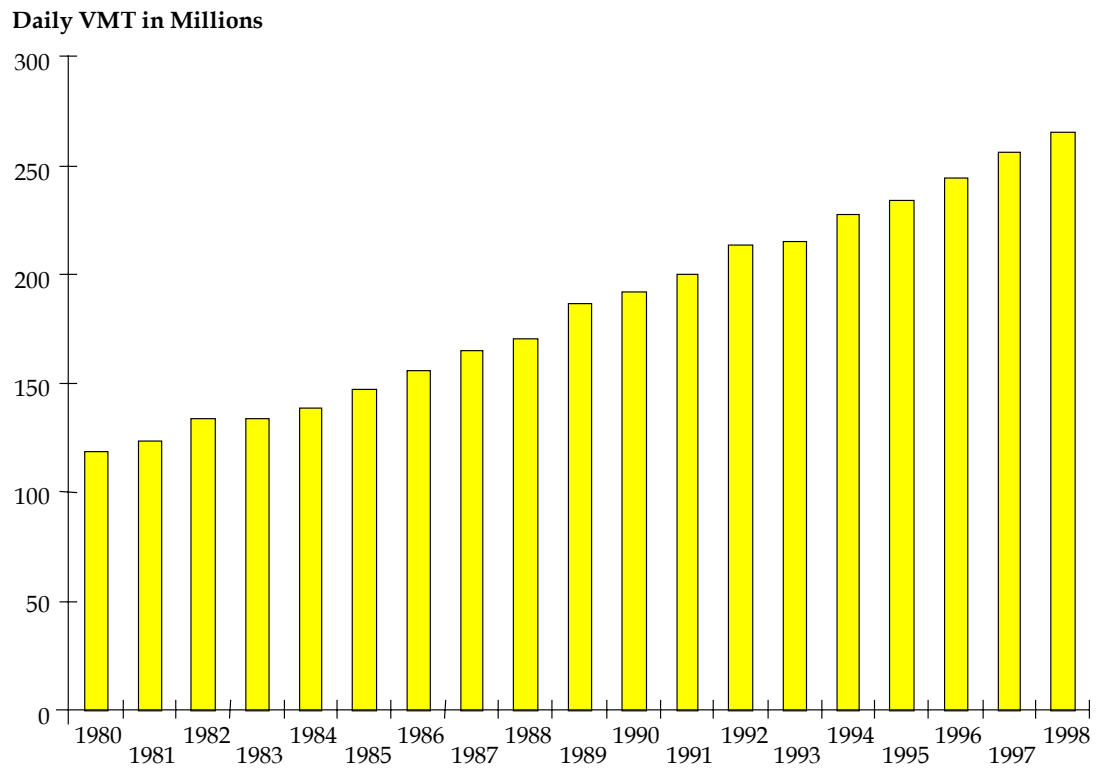


Table 1. Report Card on System Performance 1995-2000

Mission Goal	Performance Measure
Preserve the existing system	<ul style="list-style-type: none"> • Percent of pavement rated as “good” has increased • Percent of structurally deficient bridges has decreased • Age of the transit fleet has decreased
Provide a safe system with adequate capacity	<ul style="list-style-type: none"> • Highway crash rates of all kinds have decreased • Urban transit service levels have increased slightly • Rural transit service has increased • <i>Percentage of congested urban roadways has increased</i>
Encourage economic development	<ul style="list-style-type: none"> • 715 miles have been added to The Governor’s Road Improvement Program (GRIP) across the state.
Coordinate with other state and federal programs	<ul style="list-style-type: none"> • GDOT works with an increasingly diverse set of federal, state, regional and local partners, including the Georgia Regional Transportation Authority (GRTA), the Georgia Rail Passenger Authority (GRPA) and the State Road and Tollway Authority (SRTA)
Give environmental concerns consideration	<ul style="list-style-type: none"> • GDOT has invested \$168 million in transportation enhancement projects • <i>Atlanta continues to be in air quality non-attainment for ozone under the EPA one-hour standard</i> • GDOT is the recipient of an award from EPA for it’s clean air campaign efforts • GDOT has 12,500 acres in ownership for wetlands, streams and endangered habitat species mitigation
Assure adequate funding	<ul style="list-style-type: none"> • Funding increased significantly for highway reconstruction, bridge replacement, safety, enhancement and new construction because of additional funding made available through minimum allocation formulas established by the TEA-21 Act • <i>State matching funds are inadequate to meet new federal aid levels.</i>
Assure mobility equity	<ul style="list-style-type: none"> • Counties with high Environmental Justice (EJ) populations are as likely to have transit service as other counties • Overall spending by GDOT is equally balanced between EJ counties and non-EJ counties
Ensure program is accountable to the public	<ul style="list-style-type: none"> • GDOT conducts extensive and diverse public involvement activities at the project and programmatic levels

2. PLAN DEVELOPMENT

The Statewide Transportation Plan update was developed with a focus on statewide issues and programs. The analysis supporting the plan development effort used tools that could analyze conditions at the statewide level while providing for a more targeted analysis where appropriate. These tools are based on either nationally recognized analytical approaches that are available and in use in Georgia, or Georgia-specific methodologies. In either case, GDOT will be able to use these tools in the future in order to update the Plan. The key steps in plan development were as follows:

- Document existing and planned supply of transportation services;
- Develop economic forecasts for the growth of population, employment, and personal income;
- Forecast growth in travel demand for all major transportation modes using economic projections; and
- Develop revenue forecasts to predict the capacity of the state to fund transportation improvements.

The Plan development followed a traditional process – evaluating current conditions, projecting future demands and balancing those against available funding. The process involved the public and reflects their comments and concerns.

The current update built on the work of the previous plan and the public participation that resulted in the development of a vision and mission for the state transportation program. The public validated the plan direction and reviewed accomplishments since the last update. They also commented on Plan recommendations.

The results of the data analysis and projections were shared with the public in an aggressive public involvement effort that sought comments and responses. The public considered the current direction of the transportation program and its goals.

All of the above forecasts were used to evaluate combinations of improvements to address the needs of Georgia's transportation future. Cross-cutting themes that unified program combinations as a means of achieving targets were analyzed. A series of technical memoranda were prepared that address each section of the plan update in depth. These are summarized on the Department's web site at www.dot.state.ga.us and copies may be requested from the Georgia Department of Transportation Office of Planning.

2.1 ECONOMIC GROWTH FORECASTS

Economic growth is a primary factor driving the demand for transportation services. While everyone dislikes sitting in traffic congestion, increasing demand for transportation services is generally a sign of a healthy economy. As population, employment and income grow, demand for travel increases. However, these trends can have serious negative consequences resulting in environmental degradation, economic costs of time lost in congestion, increasing accident rates, and declining quality of life. At the same time, some parts of Georgia remain largely unaffected by this economic boom. The

transportation problem in economically lagging areas is not congestion, but ensuring adequate access and mobility to promote economic growth.

During the next 25 years, growth patterns in Georgia will be affected by national and state factors. Georgia has and will continue to benefit from several national trends including a strong overall economy, the shift in economic activity to the south and west, the shift toward services and high-technology jobs, and the growing importance of international trade. Georgia has benefited greatly from these trends for a variety of reasons including the presence of an ample labor force, a dynamic metropolitan hub (Atlanta), mild climate, and strong infrastructure including the nation's busiest airport (Hartsfield), excellent roadways and vibrant seaports (Savannah and Brunswick).

During the past decade, Georgia has had one of the fastest growing economies in the nation and is the fastest growing state east of the Mississippi River, sharing in the national prosperity and rapid growth of the southeastern states in general. Population, employment, and per capita personal income in Georgia grew faster during the past decade relative to the nation as a whole and the other southeast states. The state's population has been growing by roughly the size of a city like Savannah *every year* for the past decade. Although Georgia has one of the fastest growing economies in the nation, income is not equitably distributed throughout the state. Income is higher in metropolitan areas compared to rural areas, a dichotomy that grew during the 1990s.

Figure 2 shows the projected growth rates for the next 25 years. While population is forecast to grow by 2.4 million people (or 31 percent), employment will grow even faster – 42.5 percent. A higher proportion of the population will enter the labor force, resulting in rising incomes for the people of Georgia with an average annual growth rate of 2.5 percent in per capita income. However, this also suggests the potential for labor shortages that could ultimately slow growth. These forecasts are consistent with those developed by the individual Metropolitan Planning Organizations (MPO) whose forecasts are critical in the development of the specific urban area transportation programs.

2.2 TRANSPORTATION DEMAND FORECASTS

Highways

The forecasts of robust economic growth will translate into increasing demand for transportation services. The type of growth which will impact most residents of the state on a daily basis is the growth in vehicle miles of travel (VMT) which represents the total amount of travel by all vehicles on all of the state's roads. Figure 3 depicts the forecast growth in VMT for the state as a whole, the Atlanta region, other Metropolitan Planning Organizations (MPO), and the rural parts of the state.

Figure 2. Economic Forecast Growth for Georgia 1997-2025

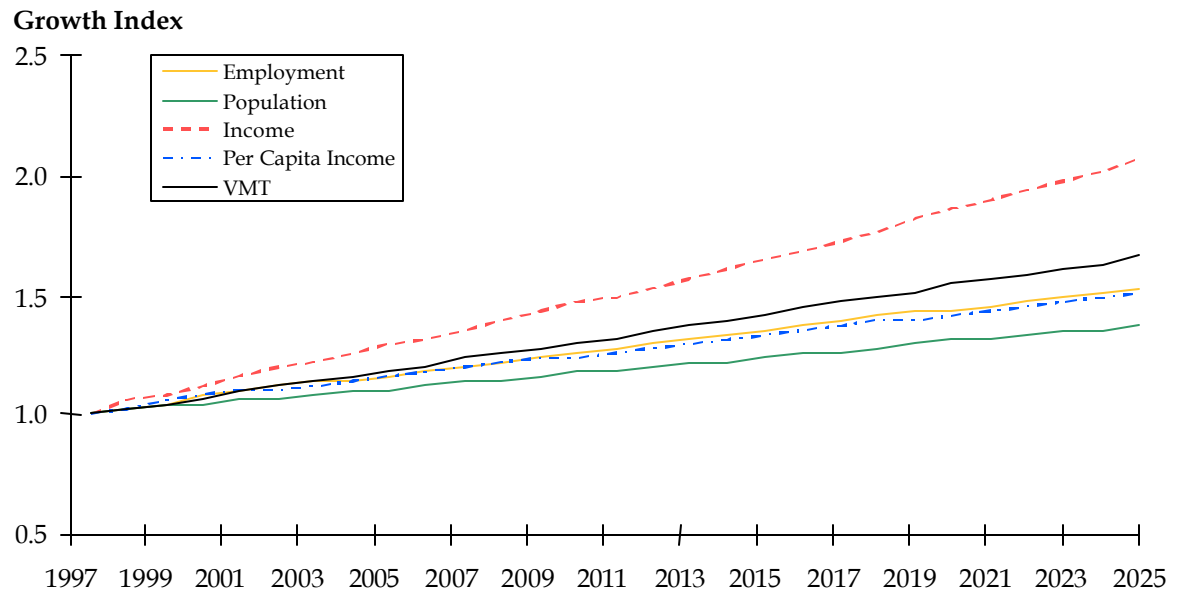
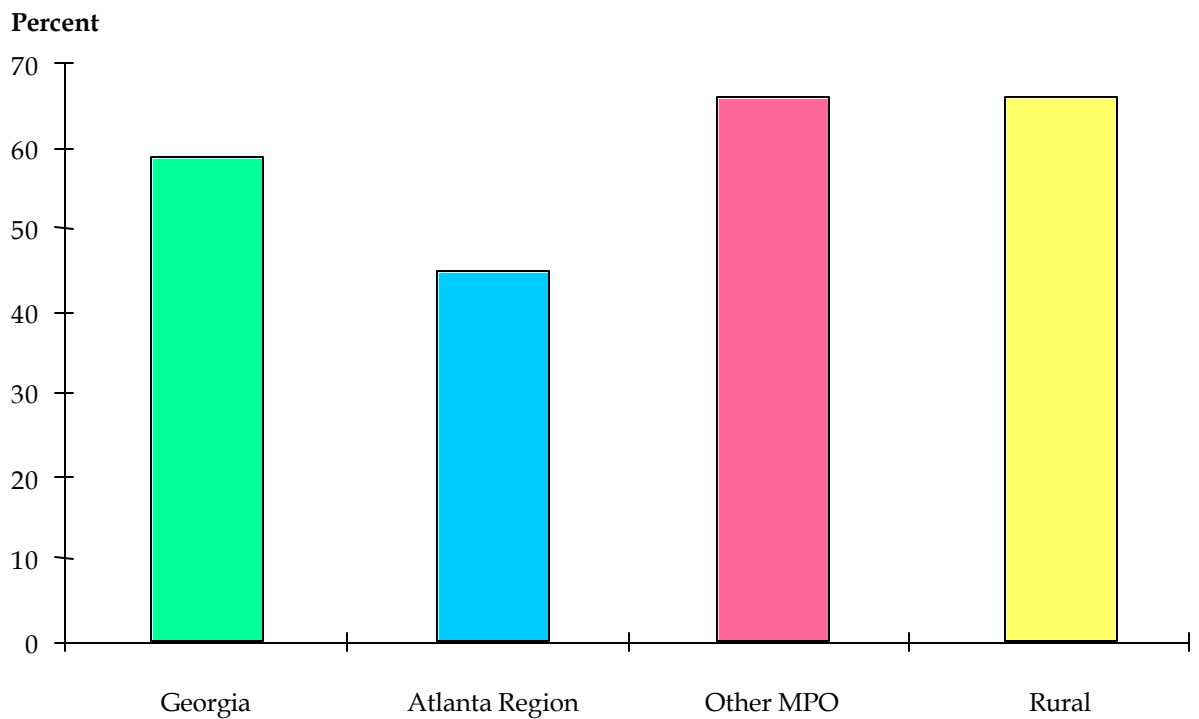


Figure 3. Growth in VMT 1998 to 2025

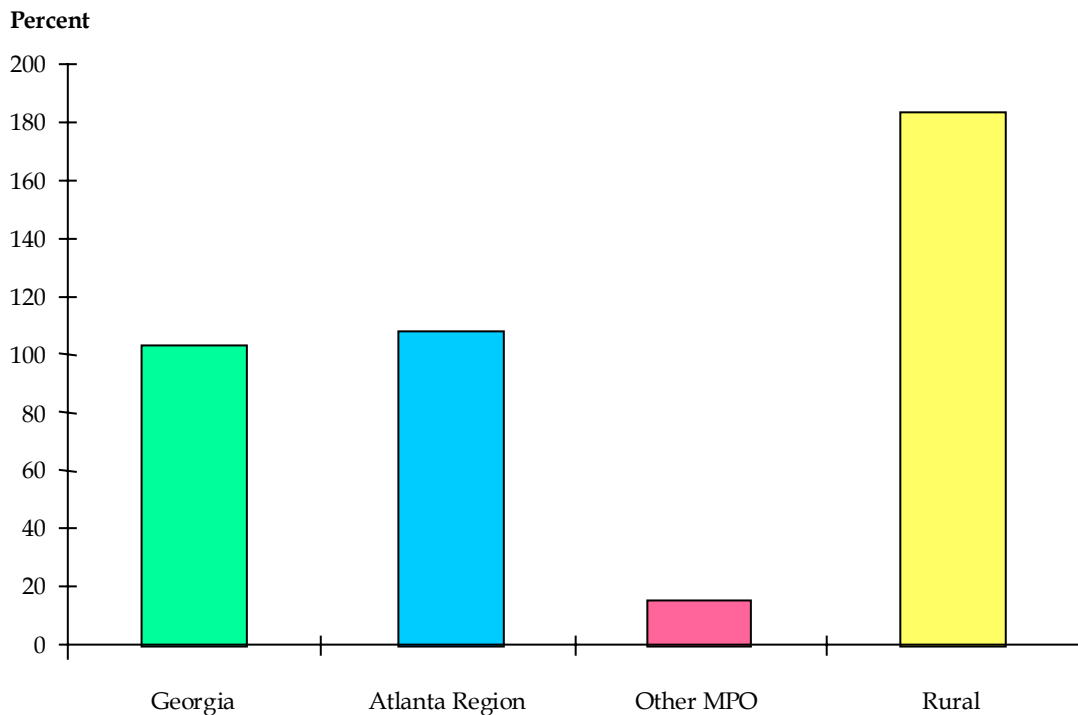


While statewide VMT is forecast to grow by almost 60 percent, growth rates are forecast to be higher outside of the Atlanta region. This growth pattern represents a significant change from the trends of the past two decades as the growth in Atlanta VMT is forecast to decline from an annual rate of 4.5 percent since 1980 to a rate of 1.4 percent. This reduced rate of growth is central to the Atlanta Regional Commission's (ARC) 2025 Regional Transportation Plan (RTP).

Transit

The effect of implementing the ARC RTP can also be seen in the forecasts for the growth in transit ridership as shown in Figure 4. Transit ridership is forecast to more than double in the state as a whole. This is due primarily to a doubling of riders using transit in the Atlanta region. As depicted, ridership is forecast to increase slightly in the other MPOs. The projected tripling of rural transit ridership is dependent on the expansion and upgrading of existing rural transit services to serve all dependent populations by the year 2025. However, a key point is that the number of rural transit riders overall is small compared to that of urban areas and as part of the statewide total ridership.

Figure 4. Growth in Transit Ridership 1998 to 2025

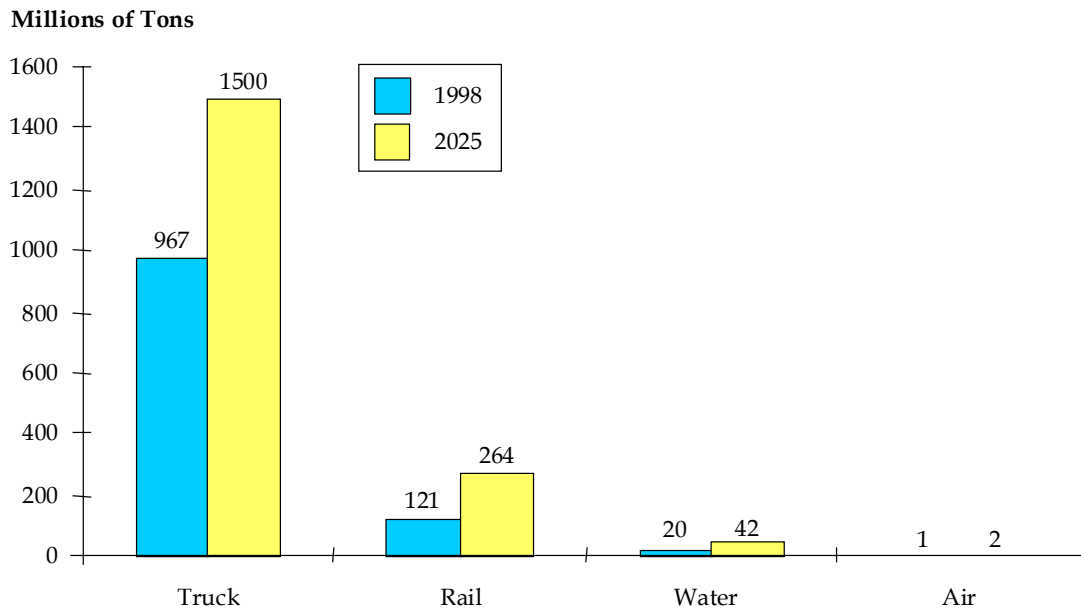


Other Transportation Modes

Other transportation modes are also forecast to experience significant growth as follows:

- **Railroad Passengers:** The only current passenger railroad service in Georgia is the interstate routes operated by Amtrak. GDOT has developed programs for an extensive series of commuter and intercity rail lines that are forecast to attract annual ridership of 12,000,000 and 2,000,000 passengers respectively by 2025.
- **Air Passengers:** Passenger enplanements in Georgia are forecast to more than double by 2025, with most of this increase occurring at Hartsfield International Airport, absent the implementation of a policy which would divert some of this growth to other regional airports.
- **Freight Transportation:** The tonnage shipped to, from, and through Georgia is forecast to increase by 63 percent by 2025. This is a considerably faster rate of growth than that forecast for population and employment and reflects increased productivity in industry and increased demand for goods by citizens and businesses of Georgia. Freight movement in the state is dominated by trucking which carries 87 percent of all cargo. While the expected rates of growth in the other freight modes (rail, air, and water) will reduce the truck mode share to 83 percent by 2025, the amount of tonnage shipped by truck is forecast to be 1.5 billion tons, a 55 percent increase. The distribution of freight tonnage by mode is shown in Figure 5.

Figure 5. Annual Tons of Freight by Mode



2.3 EVALUATION OF FUTURE FUNDING RESOURCES

Transportation financing in Georgia is provided by a combination of state, federal, and local funding sources. A review of financing resources included forecasts of future federal and state funding. The primary sources of federal transportation funds are the U.S. DOT's Federal Highway and Transit Administrations (FHWA and FTA). GDOT is expected to receive \$23 billion in federal highway and transit funds over the 25-year life of the plan.

Local funds for transportation initiatives are usually raised through a Special Purpose Local Option Sales Tax (SPLOST) or other avenues approved by the voters. The local governments and the electorate decide on local funds; because these funds are in local control, it was not possible to project local funds.

The major source of transportation funds are derived from the taxes on motor fuel. This also is commonly referred to as a user tax, because only those who use motor fuel tax pay the tax. In Georgia three distinct taxes are levied on gasoline; federal (18.4 cents) and state (7.5 cents) per gallon taxes; and the state sales tax (four percent). The 18.4 cents portion forms the core of federal-aid highway funds and is deposited into a trust fund account called the Highway Trust Fund. There are also trust funds for aviation and transit, which are also financed by user taxes.

One hundred percent of the 7.5 cent state per gallon tax on motor fuel is legally dedicated to highway use only. Seventy-five percent of the state sales tax on motor fuel is dedicated to highways and 25 percent of the sales tax goes to the State's General Fund. The sales tax portion of the motor fuel tax will increase with inflation or spikes in energy prices. (As the price of fuel increases, the revenue collected by the tax will increase).

Forecasts of future motor fuel tax revenues rely on the relationship between personal income and motor fuel consumption. As personal income increases, people travel more and consume more fuel. Thus, revenue to support transportation programs increases – but so does the demand for transportation services. Based on the forecasts of economic growth presented above, the projected annualized growth rate of state motor fuel tax revenue is just over two percent, which will raise \$13 billion in revenue over the life of the plan. This is cause for concern. This growth rate is less than most projections of inflation that run in the low three percent range. Thus, the real current dollars available to GDOT will decline over the 25-year period, unless inflation is lower than forecast or personal-income growth is greater. However, if the latter is the case, the demand for transportation services will also be greater and will consume any additional revenue which might become available.

Georgia is reliant on the fuel tax to raise revenue for transportation investments. Georgia raises 93 percent of its transportation revenue from the fuel tax compared to an average of 60 percent in other states. In particular, other states collect on average 22 percent of their transportation revenue from motor vehicle registration fees. While Georgia collects these fees, all of the revenue goes into the state's General Fund rather than into a dedicated transportation fund, and must be appropriated on an annual basis by the Legislature for use on transportation programs.

The fuel tax revenue projections are based on the “world as we know it.” Many external factors including energy crises, changes in federal and state policies, major economic changes, and the development of new technologies could alter these calculations. However, since it is not possible to predict such events the prudent course of action is to assume a continuation of existing trends.

Based on these projections, GDOT will have \$36 billion to spend on transportation programs over the next 25 years, including \$13 billion in state motor fuel tax revenue and \$23 billion in federal assistance.

2.4 EVALUATION OF PROGRAM COSTS

The update of the Statewide Transportation Plan included an evaluation of the programs required to meet future transportation needs during the 25-year life of the Plan. Some 21 separate programs were identified and analyzed. These programs fall into three broad categories: 1) programs which GDOT currently undertakes; 2) programs which GDOT has proposed to undertake; and 3) programs proposed as part of this Plan to address needs which would otherwise be unmet. Table 2 below highlights the programs as they relate to the plan’s goals.

Table 2. Programs and Plan Goals

Plan Goals	Analyzed Programs
Preserve the Existing System	<ul style="list-style-type: none"> • Bridge Preservation • Pavement Preservation • Local Assistance • Transit Vehicle Replacement
Enhance Safety	<ul style="list-style-type: none"> • Highway Safety Program
Reduce Congestion and Improve Service Levels	<ul style="list-style-type: none"> • Increase Highway Capacity • Implement HOV System • Implement ITS Strategic Plan • Increase Urban Transit Capacity • Increase TDM Programs • Increase Bicycling and Walking
Facilitate Interregional Connectivity	<ul style="list-style-type: none"> • Implement Commuter Rail Program • Implement Intercity Rail Program • Implement Rail Freight Improvements
Improve Access and Mobility	<ul style="list-style-type: none"> • Meet All Rural Transit Needs • Expand MARTA Service Area
Improve Economic Development	<ul style="list-style-type: none"> • Accelerate GRIP Implementation • Implement GPA’s Expansion Program • Implement Statewide Aviation System Plan
Enhance Quality of Life	<ul style="list-style-type: none"> • Support Smart Growth Initiatives • Continue to Apply Environmental Regulations • Support Air Quality Improvement Program

An updated estimate of the costs of the improvements and programs currently in the state’s transportation plans and programs is projected to be more than \$51 billion over the 25-year life of the plan. Based on the revenue projections described earlier, GDOT can only be certain of having \$36 billion to spend on the program. Thus, there is a \$15 billion gap between the Department’s projected financial resources and its committed program. The existence of this gap is not new. As stated in the 1995 Plan:

“Transportation for the next two decades will require more funding than can presently be identified. Without additional funding, the present

construction activity cannot be continued, new initiatives cannot be developed, and the quality of the transportation program is compromised. There is a need to increase the funding for the total transportation program.”

The current program, estimated to be \$51 billion, does not improve the transportation system enough to meet the travel demand forecast for Georgia during the next 25 years. Based on a comprehensive evaluation of future needs, an investment of \$66 to \$75 billion will be needed to sustain the system and to provide the level of service needed by the citizens of Georgia.

2.5 PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF THE PLAN

The development of the Statewide Transportation Plan included a major public involvement effort. The Public Involvement Program (PIP) was designed to allow all sectors of the public, including the traditionally underrepresented, opportunities to participate in shaping the state’s transportation future. Working closely with an internal technical committee, the Office of Communications and the seven GDOT districts, the plan’s groundbreaking public outreach effort played a crucial role in exceeding the goal of reaching 1,000,000 Georgians. Using the theme “Keep Georgia Moving,” this effort touched close to 2,000,000 Georgians from all geographic, socioeconomic and demographic groups within the state!

The Transportation Equity Act for the 21st Century (TEA-21) requires public involvement as part of statewide long-range visioning and transportation policy-making. The PIP provided opportunities for citizens and interest groups to offer comments on the existing SWTP goals, respond to economic forecasts that may impact the state’s transportation system, identify unmet transportation needs, and refine transportation improvement priorities and initiatives that they wanted considered in the statewide planning effort.

The public involvement plan for the Statewide Transportation Plan set out to:

- Involve stakeholders and the general public with early opportunities for participating in the decision-making process and by continuing outreach throughout the plan’s development, particularly to minorities and low-income persons;
- Listen to concerns and issues of stakeholders and citizens living in the different regions of the state;
- Inform the public continuously and in a timely manner of the plan’s progress and recommendations;
- Consult with community leaders about ideas for solutions to transportation problems;
- Educate the public about the transportation planning process; and
- Develop a broad outreach process that could be continued after completing the update of the SWTP.

The Public Improvement Program achieved these objectives by using the following primary approaches:

- Outreach to organizations and individual stakeholders through direct mailing and formal public and stakeholder advisory committee meetings;
- Outreach to the general public through media outlets: radio, television, newspapers, internet, flyers and signage to raise awareness of issues, schedule meetings, and provide opportunities and outlets for review and comment; and distribution to media outlets primarily serving low-income and minority groups.
- The PIP that was developed as part of the Statewide Transportation Plan was designed to be a model for future outreach activities. This process continues to be used for major planning initiatives and for projects where public involvement is important to the success of the project and its contribution to the community. The Public Involvement Plan is used as a guide by the Department's Office of Communications and by each of the GDOT's seven district offices.

3. STATEWIDE TRANSPORTATION PLAN ELEMENTS

The Statewide Transportation Plan consists of three important elements. First are the goals that the Department will use as a guide for decision-making during the next 25 years. These are the guiding principles for the Georgia Department of Transportation in making investment decisions. The second element of the Plan is the programs that will be utilized in implementing these goals. The programs incorporated into this plan provide specific direction for program implementation. The third element of the plan is a set of policies that the Department can adopt to meet its goals. Most important however, are the level of effort, and the amount of funding resources, the Department will commit to these programs.

3.1 STATEWIDE TRANSPORTATION GOALS AND PROGRAMS

The goals for the Plan update were developed using an extensive public outreach process and are consistent with the mission and vision of the Department, the Governor’s transportation priorities and federal guidelines for statewide planning. These goals and their relationship to TEA-21 requirements for statewide planning are shown in Table 3.

Table 3. SWTP Goals

SWTP Goals	TEA-21 Required Factors
Preserve the existing system	(G) emphasize the preservation of the existing transportation system
Enhance safety	(B) increase the safety and security of the transportation system for motorized and non-motorized users
Reduce congestion and improve levels of service	(F) promote efficient system management and operation
Facilitate interregional connectivity	(E) enhance the integration and connectivity of the transportation system, across and between modes throughout the state, for people and freight
Improve access and mobility	(C) increase the accessibility and mobility options available to people and for freight
Facilitate economic growth	(A) support the economic vitality of the United States, the states, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency
Enhance quality of life	(D) protect and enhance the environment, promote energy conservation, and improve quality of life

Preserve the Existing System in Good Working Order

The existing transportation system infrastructure in Georgia is in excellent condition. That infrastructure represents the considerable public investment made by Georgia in

transportation. In order to protect this investment and to ensure the optimum return to the public, this infrastructure must be protected and sufficient resources devoted to its continued maintenance. The following program elements were evaluated relative to this goal:

Bridge Preservation Program

The Department of Transportation is responsible for maintaining 14,769 bridges. An estimated \$7.2 billion will be required to maintain the system at the current level of investment to the year 2025. The bridges and structures that were constructed in the 1960s after the beginning of the Federal Highway Trust Fund program, particularly those on the interstate system, will reach the end of their service life and will need to be replaced at roughly the same time. It is estimated that an additional \$1 billion in state funds (matched by \$1 billion in federal funds) for a total state investment of \$8.2 billion will be required to maintain the bridge system to our current standard.

Pavement Preservation Program

The Department is responsible for maintaining approximately 18,000 miles or 16 percent of the state's total roadway system. These 18,000 miles, however, carry 83 percent of the state's vehicular traffic. An investment in pavement preservation of \$16.9 billion to the year 2025 is necessary to maintain pavement quality at the national average. An additional \$2.5 billion for pavement preservation will maintain the system at a significantly higher level than the national average. The investment will ensure that interstate facilities continue to be maintained at the current GDOT standard and state highways and local roads will be maintained at or above the national average.

Local Assistance Program

The Department will provide an estimated \$2.7 billion under programs for local state aid, state-assisted maintenance, and county contracts for off-system maintenance. This level of investment is equal to current funding levels. Local road assistance funding is vital to meeting the road resurfacing needs of local governments. The State Highway system carries most of the traffic but most of the state's road network mileage is on the local system. These roads help connect citizens to schools, shopping, health care and recreation.

Transit Vehicle Replacement Program

Assistance is provided to local governments by funding a program to replace transit fleets including buses and vans. An estimated \$700 million is needed to fund and maintain this important component of the transportation system during the period of the Plan update (2000-2025). The maintenance of the transit fleet requires the replacement of buses every 12 years and vans every six years.

Enhance Safety on All Transportation Systems

Georgia's transportation system ranks favorably compared to other states with respect to safety. Improvements in facility design, vehicles, and operations are expected to result in reducing the injury and fatality rates on highways by almost 50 percent over the next 25 years. The costs for future safety improvements to the transportation system are included in the Plan as part of specific transportation programs. In addition, the implementation of the following safety program is recommended.

Comprehensive Transportation Safety Program

The American Association of State Highway and Transportation Officials' (AASHTO) Strategic Highway Safety Plan set a goal of reducing traffic fatalities by 10 percent. The elements of that plan, including a driver education program, a vehicle safety program, a highway improvement program and a traffic enforcement program form the basis of this program element. It is estimated that the cost to Georgia would amount to \$200 million over the period of the Plan update.

Reduce Congestion and Improve Service Levels

Highway congestion in Georgia is expected to increase over the next 25 years, as vehicle miles of travel grow while highway capacity remains limited. Congestion increases will occur primarily in urban areas, particularly in the Atlanta metropolitan area. Reductions in the rate of growth of highway congestion can be accommodated by increasing highway capacity and also by decreasing highway demand.

Increase Highway Capacity

The level of investment to upgrade the highway system to meet most future demand throughout Georgia is estimated to be \$10.5 billion. This represents an expansion of the highway system based on current program commitments, equal to \$6.4 billion, plus additional improvements of \$4.1 billion to meet future demand.

The capacity increases that would be part of a \$4.1 billion program would allow system speed to increase from 36.8 mph forecast under the current program to 37.3 mph and result in user costs savings, primarily from travel time savings, of \$10.7 billion.

The Governor's Transportation Choice Initiative provides advance funding to provide increased capacity to the Interstate system, along Interstates I-75, I-85 and I-95. The costs for these improvements are included in this program.

Implement HOV System Plan

The cost of the HOV system is identified in the Atlanta Regional Transportation Plan (RTP) as \$3.6 billion and is part of the current program. The benefit of this improvement is an integral part of, and is combined with the improvement identified with the increase in the urban transit capacity program discussed below.

The performance of just the HOV system and a shift to carpools and vanpools, without a shift to transit, cannot be separately identified using the available tools.

The Governor's Transportation Choice Initiative includes a number of HOV projects that are incorporated into the department's program to expand the HOV system. The Governor's program will increase HOV mileage by 272 miles.

Implement ITS Strategic Plan

NaviGator, the state's Intelligent Transportation (ITS) program has a potentially significant impact on the operation of the transportation system. It provides an increase in system operating capacity through traveler information, transportation management, and incident response by increasing system reliability and reducing incident-related delays.

The cost of the existing and expanded system in the Atlanta region are included in the Atlanta Regional Commission's 2025 RTP, and are part of the baseline funding need. The annualized cost of the existing system is about \$19 million for a total cost of \$0.48 billion. The benefits of ITS implementation would amount to approximately \$1 billion. The *20-Year Strategic Plan for ITS Deployment in Georgia* outlines the implementation of the ITS program beyond the current Atlanta-based system, to all of Georgia. The estimated cost of this expansion is \$225 million.

Increase Urban Transit Capacity

The adopted Atlanta 2025 Regional Transportation Plan (RTP) provides for a significant increase in transit system capacity in the Atlanta metropolitan region. The total statewide anticipated investment in urban transit is \$13.4 billion over the life of this plan. This funding level will increase transit service contained in the Atlanta RTP and double the total transit service in the other urban transit systems.

The amount of funding committed to this program is consistent with the Governor's Transportation Choice Initiative. This level of funding will provide for implementation of express bus systems, shuttle bus services, light rail, commuter rail and related improvements to the overall transit system in Georgia.

Increase Travel Demand Management (TDM) Program

The Travel Demand Management Program works with employers and employees to encourage the use of alternative transportation choices. The program is important to the success of transit and HOV investments, and is considered a bonus in attracting and keeping staff. The TDM program results in travel time and cost savings to those remaining on the highway system of \$8.4 billion over the life of the Plan. The emissions of the ozone precursors of Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) would be reduced by 0.3 percent. The only public cost would be minimal marketing, promotion and enforcement costs.

Increase Bicycle and Pedestrian Usage

Bicycle and pedestrian infrastructure improvements will facilitate walking and/or bicycling as a mode of transportation. Improvements to bicycle and pedestrian facilities will provide the residents of Georgia with better transportation choices, relieve congestion, improve the quality of life and provide a low-cost transportation service. The cost for the bicycle and pedestrian program is included in the cost of the highway program.

Facilitate Interregional Connectivity

Facilitating the transportation connections between regions in Georgia is important to ensure that all regions are economically competitive and that transportation services and the economic development supported by transportation is equitably distributed.

Implement Georgia Rail Passenger Program

The *Commuter Rail Plan* adopted in 1995 outlined the development of passenger rail lines within a 50-county region of Georgia centered on Atlanta. The 1997 *Intercity Rail Plan* outlined a program of intercity long-distance passenger rail service to link major cities in Georgia. Phase I of the Commuter Rail plan called for the implementation of three rail lines. The funding for Phase I is programmed and is included in the current program. The Governor's Transportation Choice Initiative includes the advanced construction of the regional commuter rail line between Atlanta and Macon. To help pave the way for intercity rail, funding for express commuter bus service is included in the Governor's Transportation Choice Initiative. Express bus service will begin soon between Atlanta and Athens, Atlanta and Canton, and Atlanta and Macon.

Implement Rail Freight Improvements

The purpose of this \$2 billion investment (not currently programmed) is to upgrade the existing rail system to handle increased demand for freight movement. Rail freight currently carries 11 percent of the freight tonnage in Georgia, with the majority of the remainder served by truck. Improvements to rail freight service will improve interregional connectivity and may also shift some existing truck tonnage to rail. Rail freight consists of bulk carload and intermodal container markets. The bulk carload service carries 92 percent of all rail tonnage and intermodal containers carry eight percent. It is assumed that while most bulk tonnage is already moving by carload rail, the intermodal container tonnage is competitive. Investment in this system may serve to double the tonnage carried by rail, resulting in a reduction of truck tonnage by four percent.

Improve Access and Mobility for All Citizens

Improvements to the transportation system are necessary to ensure that access and mobility to employment and essential services is available to all Georgians.

Invest in Rural Transit Needs

A significant investment is needed to improve rural transit service and to meet projected demand. Rural transit service is offered in almost half of the rural counties in Georgia. These rural transit services are geared to addressing basic mobility needs. Rural transit service is absent in about half of the state's rural counties and is offered at less than full service levels in many counties. To address the needs of rural Georgia and provide mobility in smaller communities requires an additional investment of \$200 million beyond what is currently programmed.

Expand Metropolitan Atlanta Rapid Transit Authority (MARTA) Service Area

Funding for the expansion of the Metropolitan Atlanta Rapid Transit Authority system is shown as part of the program to increase transit throughout the state (see above). The expansion of MARTA service is part of the Increase Urban Transit Capacity alternative under the goal of reducing congestion. Expansion of MARTA service also provides for accessibility benefits, especially to environmental justice (EJ) populations.

Support Economic Development

Transportation is vital to the timely delivery of goods and services, which is vital to economic development.

Accelerate the Implementation of GRIP

The Governor's Road Improvement Program (GRIP) will connect Georgia's cities with a population of 2,500 or more citizens. This will be accomplished by providing four-lane highway connectivity to the interstate highway system. When the 16 GRIP corridors are completed, the system will place 98 percent of Georgia's population within 20 miles of a multi-lane highway, and provide access for oversized trucks to all cities having populations above 2,000. The program has potential economic benefits for rural communities. The Governor has announced an acceleration of the completion of the GRIP highways to complete over 1,500 miles of roads on 10 uncompleted GRIP corridors. Acceleration of the program will ensure that the economic benefits are realized sooner.

Implement Georgia Port Authority's Program of Expansion

The Department of Transportation will support the Georgia Ports Authority (GPA) expansion program. The GPA has a series of port and intermodal improvements scheduled. These improvements include the Savannah harbor deepening project and the Port of Brunswick channel deepening project which will allow the continued expansion and utilization of these ports.

Implement the Statewide Aviation System Plan

The Georgia Statewide Aviation Systems Plan (GSASP) outlines improvement to commercial and general aviation airports that are important to support economic development in Georgia and in the global marketplace. The GSASP indicates that the economic cost of not building the fifth runway at Atlanta-Hartsfield International Airport is \$1.7 billion per year in 2012 based on 3.5 million unserved enplanements in 2012 and \$4.4 billion in 2025 based on 8.5 million unserved enplanements in 2025. Although cargo needs are discussed, no separate economic analysis was done. No benefits are cited for other commercial airports. The GSASP gives an economic value of the general aviation system upgrades of \$650 million over the period of the Plan update.

Enhance the Quality of Life

All of the goals, policies and programs improve the quality of life in Georgia, however, the transportation system also has impacts on such concerns as sprawl, air, noise and water pollution, and other aspects of the environment. Alternatives need to be developed that ensure that Georgia's transportation system is maintained and improved in a manner that recognizes these quality of life issues.

Transportation Enhancements

Transportation Enhancements are funded as part of the Surface Transportation Program (STP). Under TEA-21, 10 percent of the STP funds are set aside for use in developing these projects. It is anticipated that the funding for this program will be extended during the life of the 25-year Plan.

Scenic Byways Program

The National Scenic Byways Program was established under the federal Intermodal Surface Transportation Efficiency Act (ISTEA) and directed the development of state scenic byways programs. Georgia scenic byways are routes that feature scenic, historic, natural, archeological, cultural, or recreational resources that should be preserved, promoted, protected, interpreted, or enhanced. To obtain designation, a local sponsor must complete a multi-stage process of identifying a route, submitting an application, developing a corridor management plan, and receiving approval from the State Transportation Board. Designation can provide byways and their communities benefits through increased tourism, economic development, or resource protection. It is assumed that both the National and State Scenic Byways Programs will be extended during the life of the 25-year Plan.

Smart Growth Initiatives

Land use planning is the responsibility of local governments and the Georgia Regional Transportation Authority (GRTA). The consequences of sprawl on the environment and on the demand for transportation resources suggest an increasing coordination with local governments is appropriate. Smart Growth Initiatives will

address the opportunities in land use planning to address urban in-fill development and suburban growth management. Such efforts could guide the creation of better communities and more productive transportation investments by GDOT.

Continue to Comply With Environmental Regulations

Transportation recommendations must comply with the laws, regulations, and executive orders concerning the environment. Project development follows a structured process and the Department evaluates and analyzes the impacts on endangered species, historical preservation, clean water, noise, hazardous materials and air pollution. The results are documented in environmental impact statements and mitigation plans. The Department will continue to rigorously comply with federal and state environmental laws applicable to transportation.

Air Quality Improvement Program

With the U.S. EPA's proposed more stringent air quality standards, the urban areas of Augusta, Columbus, Macon, Warner Robins, 11 suburban Atlanta counties and the Georgia portion of the Chattanooga urban area could be designated as air quality "non-attainment" areas. If this happens, it means that EPA has determined that the air quality in these areas has violated the stricter standards and must take steps to establish compliance. Non-attainment areas must develop transportation programs that result in reduced emissions. A vehicle inspection and maintenance program and fuel control program have been instituted in the counties in the Atlanta air quality non-attainment area in order to reduce the emissions from mobile sources. These measures could be expanded to include new non-attainment areas. The emissions control program is not administered by GDOT and will require action by other agencies. The costs of the program, including the inspection cost and the cost of low-polluting gasoline, is borne by motorists.

Wetlands, Streams and Endangered Species Habitat Mitigation

The Department maintains a program to purchase, maintain and rehabilitate protected lands that serve to mitigate the impact of highway construction on these sensitive areas. Over 12,000 acres of sensitive habitat sites have been purchased and designated as protected areas. During 2002, GDOT anticipates spending \$10,000,000 on this program, a level of effort that may extend through the year 2025. Transportation personnel plan to work closely with and through the Department of Natural Resources to continue this program into the future.

3.2 STATEWIDE TRANSPORTATION POLICIES

The development of the Statewide Transportation Plan identified many challenges that will be faced during the next 25 years. The following policies have been identified to provide direction in meeting the goals that were established during the Statewide Transportation Plan update.

- The Georgia Department of Transportation will seek new and innovative funding sources to continue to maintain the system at the current standard and meet future needs. It is recognized that additional funding beyond those currently dedicated to transportation will be required to maintain the transportation system to the current standard and meet future needs.
- The Department will continue to work with public and private partners to improve critical elements of the transportation system, including the airport system, commuter and intercity rail, the rail freight system and port facilities.
- The Department will develop strategies to further reduce fatalities as part of the Comprehensive Highway Safety Program.
- The Department will rigorously follow the laws, regulations, and executive orders concerning the environment in the application of transportation programs.
- The Department will continue to implement bicycle and pedestrian improvements based on the Bicycle and Pedestrian Plan.
- The Department will work with local governments and private developers to encourage smart growth initiatives in order to minimize the impact of growth on the transportation system.
- The Department will work closely with the state's public and private partners to implement transportation demand management, in order to relieve congestion and to mitigate air quality impacts in metropolitan areas.