2009

MARYLAND TRANSPORTATION PLAN

Maryland Department of Transportation

MARTIN O'MALLEY
Governor

ANTHONY G. BROWN
Lt. Governor

JOHN D. PORCARI
Secretary of Transportation

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2009 MARYLAND TRANSPORTATION PLAN

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Maryland Department of Transportation

Message from the Governor

The State that we pass on to our children and theirs will be deeply shaped by the actions, decisions, and policy choices that we make today. Our shared challenges of population growth, a rapidly diversifying economy, improving our infrastructure, preserving our environment, and building sustainable communities will require a creative and visionary approach to make sure that we are able to lay the groundwork for a stronger future in Maryland.

The 2009 Maryland Transportation Plan sets forth a Statewide vision for Maryland's transportation system. It is a framework for the most efficient investment of resources to ensure that our transportation system will remain well maintained, safe, secure, efficient, and reliable. The common thread through this comprehensive effort must be that we preserve Maryland's rich and diverse environment while we seek that more sustainable future we prefer.

Transportation investments have a profound impact on growth and development in Maryland. State transportation decisions and local land use policies must be coordinated to promote Smart Growth in our State. Under the O'Malley-Brown Administration, State agencies are working together to accomplish this goal. The **Maryland: Smart, Green & Growing** initiative is a multi-agency, Statewide initiative to help Maryland achieve a more sustainable future by linking community revitalization, transportation improvements, economic development, Smart Growth, and environmental restoration efforts. Accordingly, the Maryland Department of Transportation is working closely with the Maryland Department of Planning and other stakeholders to develop the first State Development Plan to ensure that these plans are supportive and define a larger State vision.

The decisions that we make about transportation now truly determine the future character of our State. Please join me, Transportation Secretary John Porcari, and the dedicated employees of the Maryland Department of Transportation to ensure that the solutions to our transportation challenges improve the quality of life for Maryland's citizens, promote Maryland's economic competitiveness, and foster smarter and more sustainable patterns of growth for our future.

Martin O'Malley
Governor of Maryland

Message from the Secretary of Transportation

The Maryland Department of Transportation (MDOT) is responsible for building, operating, and maintaining a safe and seamless transportation network that links Maryland both internally, and with the rest of the country and the world. To accomplish this, the 2009 Maryland Transportation Plan establishes a 20-year vision through Statewide goals and objectives that address all methods of transportation and respond to critical issues such as:

- How MDOT can best serve Maryland's residents, businesses, and visitors;
- Safety, which is the State's highest commitment to its customers;
- Maintenance and preservation of our transportation infrastructure;
- Reduction of greenhouse gas emissions and a coordinated response to climate change; and
- Providing mobility choices for the efficient movement of people and goods.

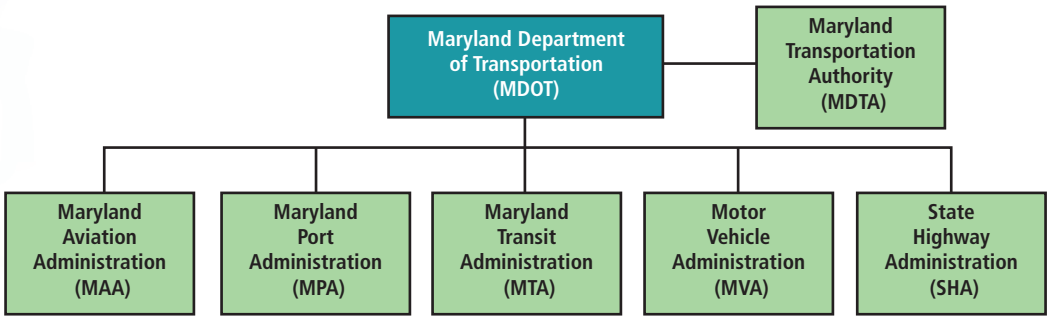
MDOT must keep up with increasing demand for the movement of people and freight by wisely investing precious tax dollars. Accordingly, the Department will be held to a high level of accountability through a performance measurement process that reports on how well the goals and objectives of this Plan are being met.

The 2009 Maryland Transportation Plan is the result of extensive outreach and coordination with State agencies, local jurisdictions, and the public. The Plan reflects the priorities of the people of Maryland and has the support of many partners whose collective efforts will be needed to fully realize the Plan's vision for transportation. MDOT is committed to deliver on the promise of this Plan.

John D. Porcari
Secretary of Transportation

MULTIMODAL TRANSPORTATION IN MARYLAND

The Maryland Department of Transportation (MDOT) is one of the State's largest agencies, with nearly 9,000 employees committed to delivering a balanced and sustainable multimodal transportation system for all Maryland's residents and businesses. As a truly multimodal transportation agency, MDOT is responsible for coordinating Statewide transportation planning activities across all methods of transportation, including highways, tunnels, bridges, railways, rail transit, buses, ports, airports, bike paths, sidewalks, and trails, as well as driver services. MDOT provides oversight of, and coordinates with, five Administrations that have unique functional responsibilities for the transportation facilities and services in Maryland:



The Secretary's Office (TSO) establishes the Department's transportation policy and oversees the Modal Administrations. The Secretary of Transportation also serves as Chairman of the Maryland Transportation Authority (MDTA), an independent agency responsible for Maryland's seven toll facilities. Working as one, Maryland's transportation agencies move the State's transportation network forward toward a seamless transportation system that supports Maryland's economy and enhances the quality of life for all Marylanders.

The Department's policy direction reflects important, and often difficult, choices about the future of Maryland's transportation system. For example, the world's climate is warming; and human activities, including transportation facilities and services, are contributing factors. To address this issue, the Department, its Modal Administrations, and MDTA are actively engaged in exploring ways to strike a more thoughtful balance between transportation and the environment. Other priority initiatives are oriented toward day-to-day activities, for which TSO provides management and support to the Modal Administrations and employs the use of transparent, outcome-oriented methods like performance monitoring.

ONE MARYLAND, ONE MDOT

Maryland's transportation agencies are united in their shared responsibility to provide safe, efficient transportation options and quality services that move people and goods through our State. Each day, MDOT's Modal Administrations and MDTA work together to implement coordinated transportation strategies that are open, transparent, and accountable.

KEY ASSETS OF MARYLAND'S NETWORK

Maryland's vast transportation network touches all Maryland's citizens, from registering a car to boarding a plane. Key assets of Maryland's network include:

- A comprehensive roadway system of over 31,000 centerline miles, including 775 miles of Interstate and freeways; 1,500 miles of Principal Arterials; 7,300 miles of Minor Arterials and Collectors; and 21,500 miles of local roads. There are over 5,000 bridges in Maryland, including nearly 2,600 on the Maryland State Highway System.
- A transit system that includes urban bus and rail transit in Baltimore (operated by MTA) and Washington (operated by the Washington Metropolitan Area Transit Authority, or WMATA), the Maryland Area Regional Commuter (MARC) intercity passenger train service, an extensive commuter bus network, and 25 Locally Operated Transit Systems (LOTS).
- Vital links for raw material and manufactured goods moving through the Port of Baltimore.
- Several privately operated freight rail lines.
- An aviation system that includes Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall Airport) and Martin State Airport (both operated by MAA), 18 publicly owned general aviation airports, and 18 private airports open for public use.
- MVA provides services for titling, registration, and licensing at MVA headquarters and its branch offices throughout the State.

MDOT operates or supports all of these transportation assets through a combination of planning, policy direction, and capital and operating assistance. Through the Motor Vehicle Administration's Call Center, web site, and 24 branch locations, MDOT also provides motor vehicle and personal identification services that allow the citizens of Maryland to own and operate an automobile, board a plane, ride transit, and conduct their daily lives. To maintain and improve their networks and services, the Department uses the Maryland Transportation Plan as its guiding policy document.

DEVELOPING THE MARYLAND TRANSPORTATION PLAN

MDOT'S MTP PUBLIC INVOLVEMENT AND COORDINATION ACTIVITIES

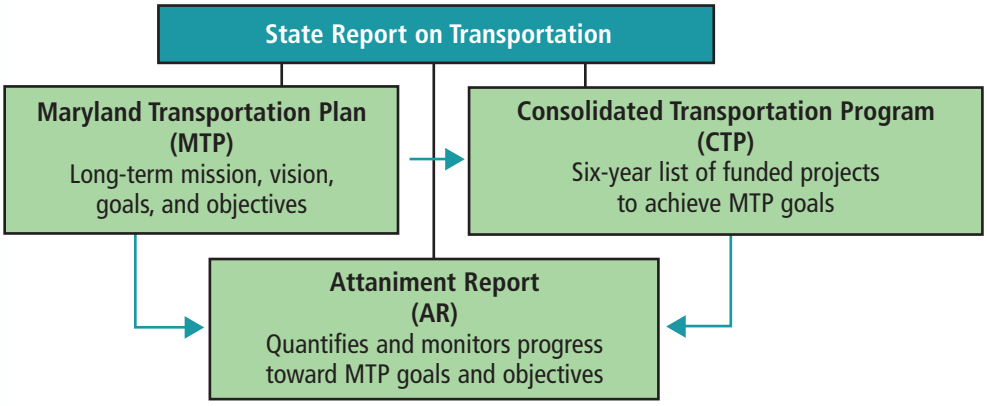
Conducting stakeholder outreach is critical to developing any long-range transportation plan. In developing the MTP, MDOT employed outreach techniques that both communicated agency information and gathered stakeholder input by consulting with numerous State, regional, and local agencies and reviewing their strategic planning documents in order to create synergies among current planning efforts throughout the State.

MDOT also engaged thousands of citizens and numerous stakeholder interest groups representing the diverse needs and concerns of Maryland's residents and businesses. MDOT used a fresh approach to outreach by facilitating an innovative partnership between MDOT and Maryland's county libraries, where patrons accessing library computers were invited to participate in an on-line MTP survey. This partnership encouraged the involvement of a wide-range of Maryland's citizens, many of whom might not typically participate in traditional transportation planning outreach efforts.

Through interviews, facilitated meetings, an interactive website, newsletters, and an on-line survey, MDOT gathered input from its many customers on issues of Statewide importance. These contributions led to a refined mission and vision statement for MDOT and a set of goals and objectives that form the framework of the MTP.

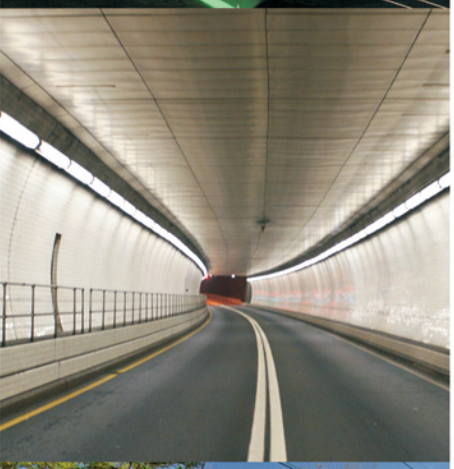
WHAT IS THE MARYLAND TRANSPORTATION PLAN?

The Maryland Transportation Plan (MTP) is a 20-year vision for transportation in Maryland. The MTP outlines the State's transportation policies and priorities and helps guide Statewide investment decisions across all methods of transportation. The MTP is one component of the annual State Report on Transportation, which also includes the Consolidated Transportation Program (CTP) and the Attainment Report (AR). The CTP is Maryland's six-year capital budget for transportation projects. The annual AR tracks MDOT's progress towards attaining the goals and objectives of the MTP using outcome-oriented performance measures.



WHY IS THE MTP IMPORTANT?

The MTP's multimodal goals and objectives reflect the needs of MDOT's customers and identify key focus areas that form a framework for the Department's decisions about which projects and programs to fund. The MTP is a living document that serves the needs of the State's travelers, businesses, and visitors, which is why this MTP contains implementation strategies that identify how the MTP goals and objectives will become a reality. The next step is to make sure that plans and goals developed at the local, county, and regional level are consistent with MDOTs Statewide goals.



HOW IS THE MTP UPDATED?

In accordance with State and Federal requirements, MDOT updates the MTP every four to five years to address current and future transportation challenges and conditions. For the 2009 update, MDOT conducted extensive public outreach to engage Maryland's residents, businesses, governmental agencies, and interested organizations so that the long-range vision, goals, and objectives respond to the needs of all of Maryland's residents, businesses, local governments, and communities, as well as its many visitors. The process included:

- Public involvement to ensure the planning process is inclusive and responsive to a host of diverse interests.
- Consultation and coordination with State, local, and regional planning documents and stakeholders.
- Analysis of issues that will shape existing and future conditions and performance of transportation in Maryland.
- Development of MTP implementation strategies that address capital investment, operations, management, environmental mitigation, and multimodal connections.

MDOT's 2009 update of the MTP was guided by an internal Advisory Committee composed of representatives from all of Maryland's Modal Administrations, MDTA, and MDOT's Office of Planning and Capital Programming, as well as the Office of Policy and Government Affairs. This Advisory Committee helped to ensure that the MTP is a well coordinated document that touches all aspects of transportation in Maryland.

PUBLIC INVOLVEMENT FINDINGS

As part of the MTP outreach process, MDOT gathered input from the public that ranged from concerns about specific intersections and bus routes to Statewide issues about climate change and economic competitiveness. Some key themes expressed across the State included:

Mobility

- Alternatives – Encourage the use of alternative methods of transportation by offering viable choices and by promoting carpooling, teleworking, and flexible work hours.
- Integration – Create a seamless, integrated, multimodal transportation system connecting population and employment centers.
- Capacity – Expand network capacity to meet the growing demand for transportation across all methods of transportation.

Human and Natural Environments

- Preserve the natural environment by reducing carbon emissions and protecting open space and environmentally sensitive areas.
- Enhance communities by coordinating land use and transportation and incorporating Smart Growth principles into transportation planning and development.
- Preserve Maryland's heritage by protecting historic, cultural, and natural resources.

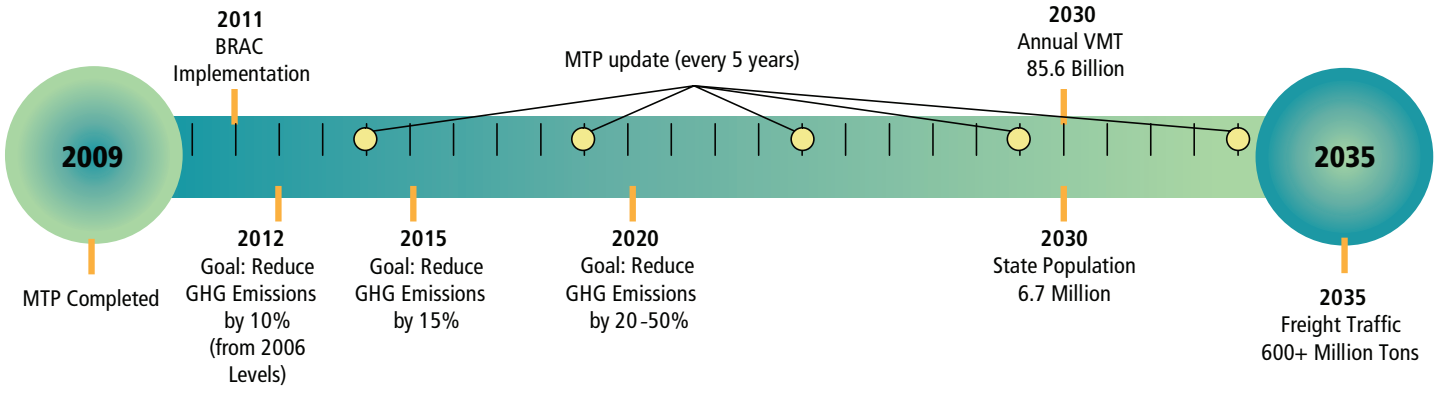
Maintenance and Preservation

- Maintain existing infrastructure in a state of good repair.
- Preserve, upgrade, or replace existing infrastructure before focusing on new capacity.

CRITICAL ISSUES FACING MARYLAND

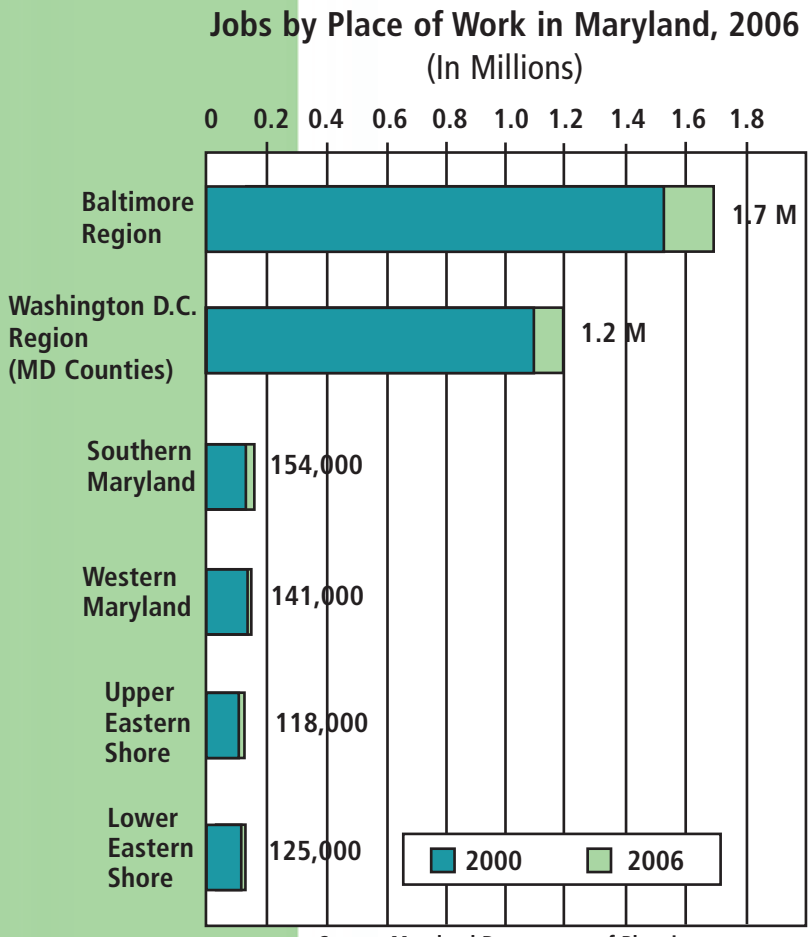
Over time, changes to Maryland's population, economy, and environment will result in far-reaching effects on the transportation system. The picture of transportation in Maryland in 20 years may look quite different than today's. Though not a comprehensive list of the challenges that MDOT will face in the coming years, the following critical issues are some of the most important issues that will shape the decisions made by MDOT, its Modal Administrations, and MDTA. The MTP provides a path to help MDOT address these challenges in the future.

- Transportation and the Economy
- Freight Demand and Infrastructure Capacity
- Planning for Development
- Transportation and the Environment
- Transportation Needs Outpacing Funding Resources
- Transportation-Related Fatalities and Injuries



TRANSPORTATION AND THE ECONOMY

Maryland lies in a central location along the Eastern seaboard, and its transportation network is critical to linking the regional and national economies. The State's transportation resources consist of over 31,000 miles of roads and highways, over 700 miles of railroads, and multiple public transit facilities including Core Bus, Light Rail, heavy rail, and commuter rail service, the Port of Baltimore, and BWI Marshall Airport.



Source: Maryland Department of Planning

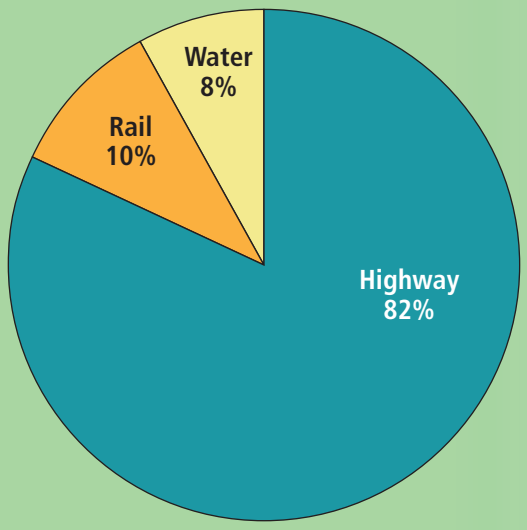
Maryland has a diversified economy based on high technology, biosciences and services, as well as manufacturing and international trade. The transportation system provides Maryland residents access to these jobs. Maryland's 161,000 private businesses employ over two million workers (82 percent of the State's jobs) with an annual payroll of $92 billion. The proximity to Washington, D.C. is a reason over 50 Federal agencies account for 5 percent of Maryland's jobs. Over 84 percent of the State's jobs are located in the metropolitan Baltimore and Washington regions.

Based on 2000 Census Journey to Work data, over 450,000 Maryland residents earn their living out-of-state, with a majority of these workers employed in Washington, D.C. Those who commute out-of-state to work comprise 18 percent of all working residents of Maryland. By contrast, fewer than 183,000 workers commute from other states and Washington, D.C. to work in Maryland.

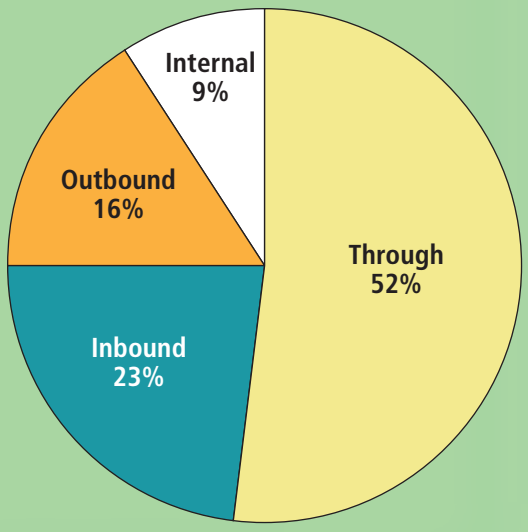
Military installations are significant employers in Maryland. Fort George G. Meade in Anne Arundel County is the State's largest employer, with approximately 40,000 jobs. Through the 2005 Base Realignment and Closure (BRAC) Act, Maryland is expected to gain between 45,000 and 60,000 new jobs at and around five installations by 2011. To meet the challenges posed by this influx of workers, MDOT and other State agencies have participated in the Governor's BRAC subcabinet to develop the State of Maryland BRAC Action Plan, a comprehensive approach to support and improve the State's infrastructure, workforce, and engines of economic development. Implementing the Action Plan in time to meet the influx of new jobs by 2011 poses an immediate challenge, given current revenue generation from key sources of the Transportation Trust Fund.

The transportation system also supports Maryland's economy by directly and indirectly providing thousands of jobs and billions in wages to Maryland workers. A study of resources spent over a 10-year period *(Economic Impact from Maryland DOT's Surface Transportation Spending, 1997-2006)* found that each dollar of spending on surface transportation in Maryland is associated with over $2.20 circulating in Maryland's economy. Similarly, over 50,000 jobs, $3.6 billion in personal income, and $338 million in State and local tax revenue are dependent upon the cargo and vessels that travel through the Port of Baltimore each year. The economic benefit of BWI Marshall Airport is approximately 10,000 direct jobs, with an indirect benefit of approximately 90,000 jobs and nearly $5.0 billion in annual economic activity.

Freight Movement in Maryland by Mode, 2006



Freight Movement in Maryland by Direction, 2003



FREIGHT DEMAND AND INFRASTRUCTURE CAPACITY

The movement of freight by highway, rail, water, and air in Maryland is critical to the State, regional, and national economies. Maryland's world-class transportation system is critical for economic development and provides access to markets. The State's freight transportation sector employs over 50,000 Maryland residents. Major employers in Maryland rely heavily on freight transportation to succeed in today's competitive global economy; smaller businesses could not survive without the smaller freight carriers to serve their operations.

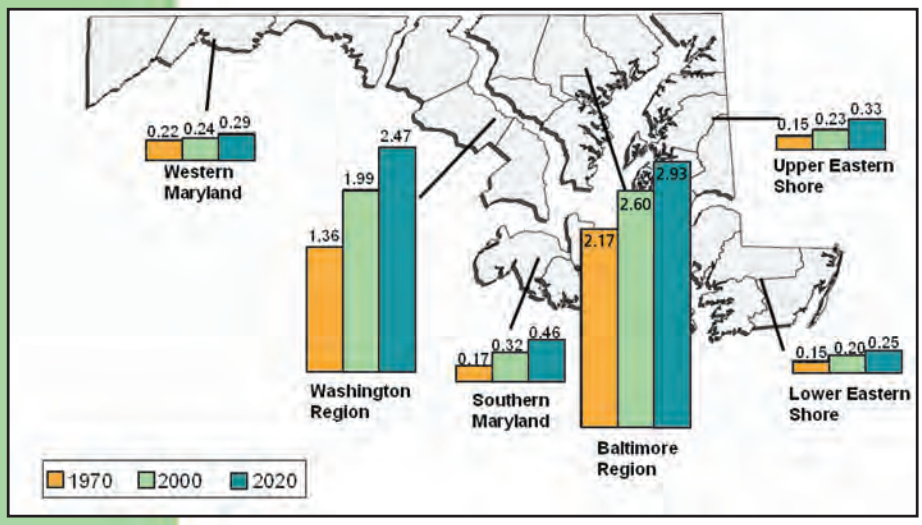
Maryland is involved with all aspects of freight movement, from shipping raw materials to manufacturing and distributing to the end user. About 82 percent of freight tonnage moves by truck, followed by rail, water, and air. Maryland is primarily a "through" State for freight, with more than half of the tonnage passing through the State. The current flow of freight in specific corridors and regionally across the State is impeded by chokepoints and aging infrastructure. For example, congestion on the I-95 Corridor in Maryland impacts interstate commerce from New York to Florida.

MDOT is involved with the I-95 Corridor Coalition to evaluate truck and rail capacity chokepoints and to identify solutions for efficiently moving freight in this key Corridor. The State is working with railroads, Federal, and State partners to eliminate rail chokepoints in Maryland, such as the Howard Street Rail Tunnel, a critical rail link for shippers in Maryland and across the Eastern U.S.

By 2035, freight traffic is expected to double in Maryland, with the majority of tonnage being transported on highways. Based on these projected increases in freight movement, MDOT is developing a comprehensive Statewide Freight Plan. The Freight Plan will identify candidate "Freight Projects of Regional and National Significance" to compete for Federal funding. It will also establish a holistic approach to grow economic development while promoting the State's Smart Growth and environmental goals. Without a functioning transportation network in Maryland, the system-wide movement of freight throughout the region and the Mid-Atlantic would be severely impacted.

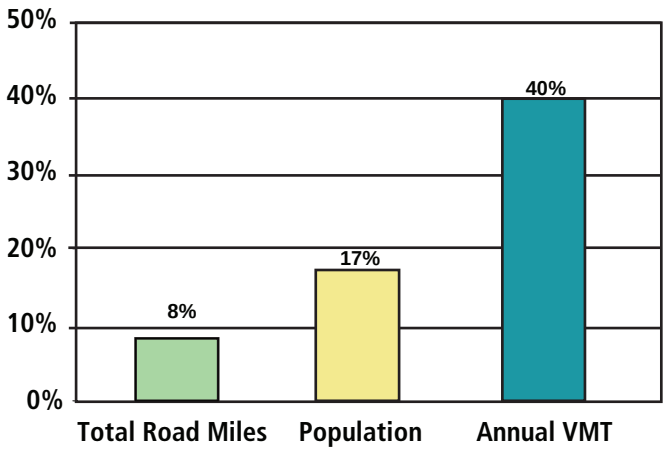
Maryland Population

(In Millions)



Source: Maryland Department of Planning

Percent Growth in Maryland 1990 - 2006



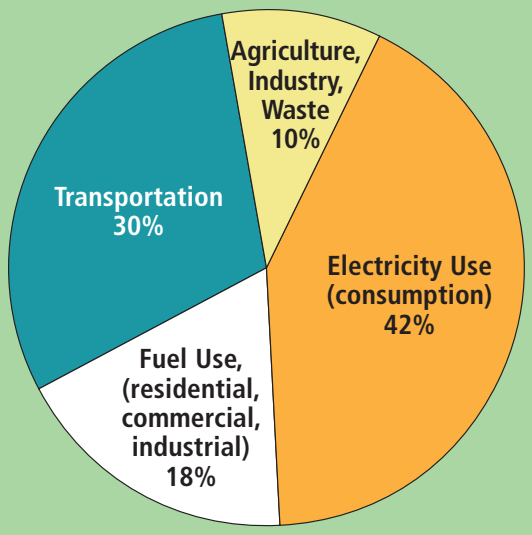
Source: 2006 Highway Statistics & U.S. Census Bureau

PLANNING FOR DEVELOPMENT

With an estimated population of over 5.6 million residents in 2007, Maryland is the 19th most populous state, but has the 5th highest population density. By 2030, the State's population is projected to increase to 6.7 million. Continued economic and population growth will increase demand on the transportation network, much of which is aging and near capacity. MDOT must tackle the challenge of getting another million residents to work, to shopping, and to recreational activities using all available tools. MDOT recognizes the impact that transportation can have on economic growth and development. Transportation policies, programs, and procedures play an important role in shaping where and how Maryland grows. Over the last two decades, vehicle miles of travel (VMT) have grown at more than twice the rate of population in Maryland, while the roadway and transit systems have seen limited expansion, increasing congestion on the transportation system. Maryland, like many states, has experienced a recent decline in VMT due to high fuel prices and an economic downturn, though there is no clear evidence that Marylanders will continue to drive less in the future.

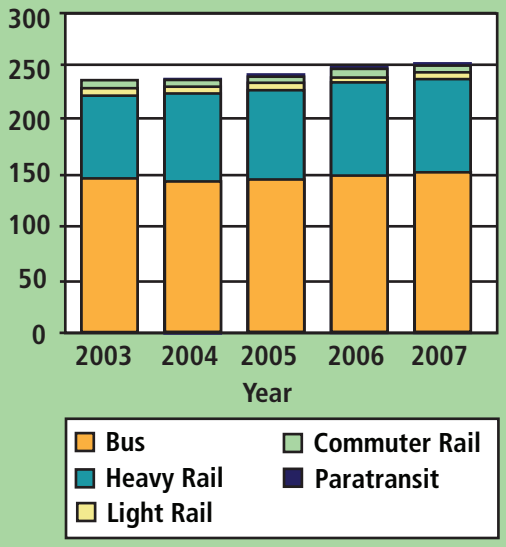
MDOT is addressing this challenge, both through agency initiatives, such as promoting and facilitating transit-oriented development (TOD) around existing and future transit stations, and interagency efforts, such as the Maryland State Development Plan (SDP). Led by the Maryland Department of Planning, the SDP is intended to promote healthy, vital communities, and conservation of rural lands, streams, rivers, and the Bay through coordinated economic and physical development of the State. The goals of the SDP include concentrating development in suitable areas, protecting environmentally sensitive and resource lands, and providing a sustainable quality of life for Maryland's communities.

Share of Maryland Greenhouse Gas Emissions, by Sector (2005)



Source: Maryland Commission on Climate Change

Millions of Annual Transit Riders in Maryland, by Mode



TRANSPORTATION AND THE ENVIRONMENT

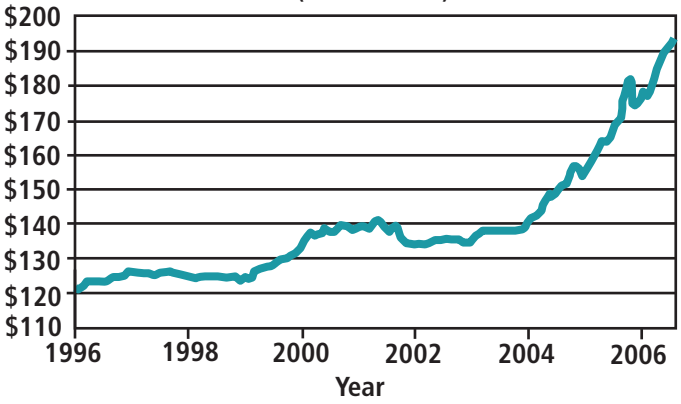
Maryland is committed to understanding and addressing the causes and consequences of climate change. With more than 7,000 miles of shoreline along the Chesapeake Bay and the Atlantic Ocean, Maryland has a long tradition of water-based industries, from fishing to shipping. However, the extensive shoreline makes Maryland the 4th most at-risk state for sea level rise due to increasing temperatures. The potential consequences of rising sea levels include an increase in the intensity of coastal floods and shore erosion, the intrusion of saltwater into freshwater aquifers, and the submergence of tidal wetlands and low-lying lands. Every year, the State loses approximately 580 acres to erosion.

The main contributor to climate change is the release of greenhouse gas (GHG) emissions related to human activities, including electric power generation and driving automobiles. According to the Maryland Commission on Climate Change, Maryland accounted for approximately 109 million metric tons of gross CO_2 emissions in 2005, an amount equal to about 1.5 percent of total U.S. GHG emissions and an 18 percent increase from 1990 levels. After electricity consumption, the transportation sector contributes the most GHG emissions in Maryland.

Under Governor O'Malley's **Smart, Green & Growing** initiative, Maryland is beginning to address climate change through its Climate Action Plan, which sets Statewide goals for reducing GHG emissions. Reducing transportation GHG emissions will likely require a range of transportation and land use policy options, including increasing the use of cleaner fuels, transitioning State vehicle fleets to high efficiency vehicles, providing robust transit service, promoting land use options that reduce the need for single occupant vehicle use, and considering road pricing strategies to both help offset the environmental costs of transportation and to address congestion.

MDOT and its Modal Administrations are implementing key policies aimed at reducing GHG emissions described in the Climate Action Plan. MTA prepared the MARC Growth and Investment Plan to expand and improve commuter rail service in Maryland, and is working to increase transit ridership across the State.

SHA is working to ensure safe walking and bicycling conditions whenever highway facilities are being improved, and promotes ridesharing through its provision of park-and-ride facilities. MDOT programs aimed at reducing GHG emissions include Travel Demand Management (TDM) strategies to reduce VMT growth, implementing transit-oriented development, and MTA is also promoting work trip reduction alternatives through Commuter Choice Maryland. In addition to reducing GHG emissions, these policies also help relieve transportation system congestion, improve quality of life and access to jobs, and stimulate community reinvestment.



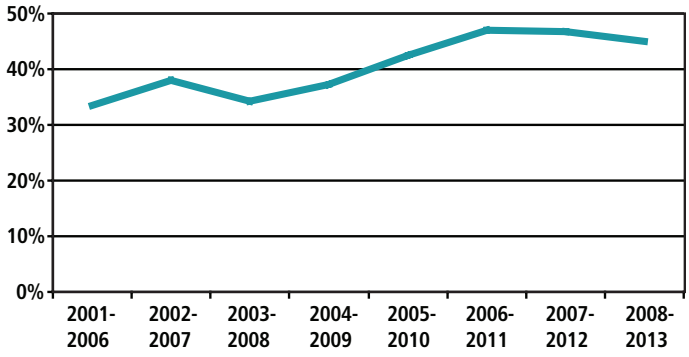
Source: Bureau of Labor Statistics
(1986 = $100 million in scale)

TRANSPORTATION NEEDS OUTPACING FUNDING RESOURCES

MDOT is currently in a position where it must do more with less. The combination of a general economic downturn across the nation and in Maryland, and higher fuel prices have combined to reduce receipts from gas taxes, titling fees, and sales taxes – all important sources for the State's Transportation Trust Fund (TTF). Though economic growth will likely lift TTF receipts, these short-term funding challenges suggest an opportunity to reconsider the stability of the sources used to pay for both operation of the transportation system and building new capital projects. This will be especially important if the recent run-up in gasoline prices shifts American automobile choices to more fuel-efficient, less expensive vehicles over the long-term, and creates a greater demand for transit operations.

The second major funding challenge that MDOT faces is a decline in purchasing power due to increasing costs for both major capital projects and system operations, as well as inflation. Major commodities such as steel, concrete, fuel, and others have seen double digit increases in price over the last several years. The cost of building and operating highways increased over 40 percent between 2004 and 2006 (compared with a seven percent rise in the Consumer Price Index). Meanwhile, the purchasing power of the Federal Highway Trust Fund has decreased by 40 percent since 1993. After adjusting for inflation, the current Federal gasoline tax rate is equivalent to the 1983 rate.

And even as costs have increased and funding has declined, Maryland's transportation infrastructure has been aging. Major infrastructure, such as the Bay Bridge, and other large bridges throughout the State, and the WMATA and MTA rail systems require substantial investment in maintenance and rehabilitation. MDOT has a policy to first preserve existing transportation assets, as the cost of replacing major infrastructure is substantially greater than the cost of maintenance. Over the last seven cycles of the CTP, the share of capital funding allocated to system preservation projects has increased by 12 percent. Because preservation remains the Department's top priority, funding for capital expansion projects – new roads, rail, purchases of transit vehicles, and other similar efforts that expand the capacity of the transportation system – will be limited. In this climate, MDOT emphasizes strategic investments in the multimodal transportation system to achieve the Department's goals of a balanced, environmentally responsible transportation network.

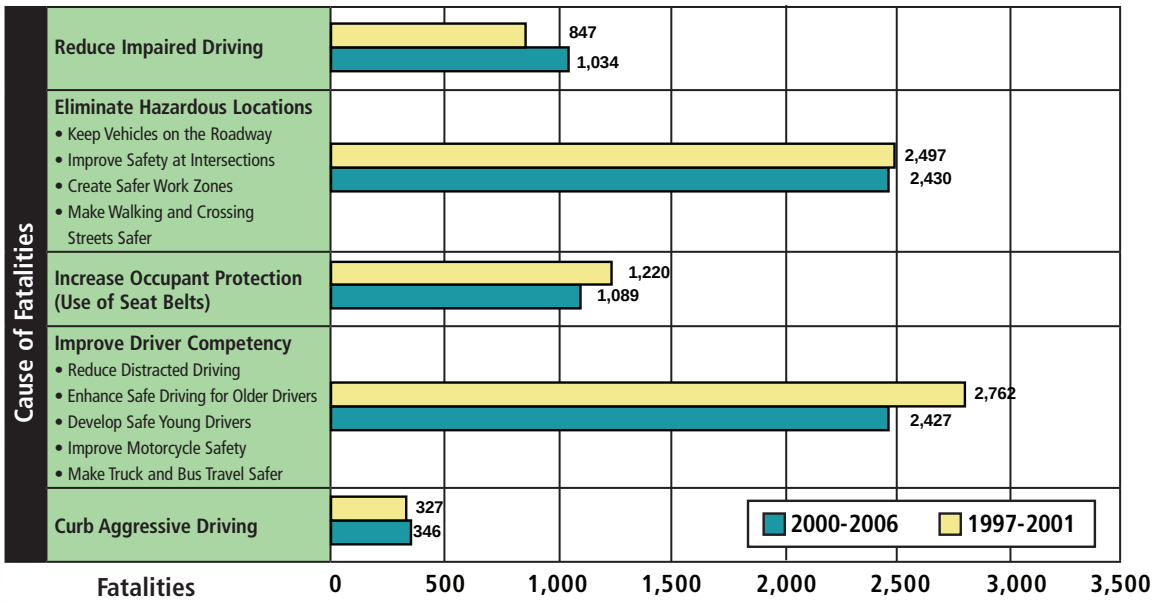


TRANSPORTATION-RELATED FATALITIES AND INJURIES

Motor vehicle crashes are the leading cause of death in the United States for people between six months and 45 years of age. From 1996 to 2005, more than 6,000 people have died on Maryland roads and highways, and over 600,000 were injured at a cost of more than $4.5 billion annually. In the absence of substantial progress in reducing vehicle crashes, more than 400,000 people will die on roadways nationwide during the current decade at a cost of nearly two trillion dollars. Given that the majority of motor vehicle crashes are preventable, there exists a critical need to reduce the human suffering caused by motor vehicle fatalities and injuries in Maryland.

From highways to railways to waterborne movement, transportation safety is a multimodal challenge. To ensure that all State transportation facilities are safe for users, regardless of their method of travel, Maryland's transportation agencies take a strategic approach to identifying safety challenges and have developed strategies to address those challenges. The most significant of these efforts is the development of Maryland's five-year, Statewide coordinated safety plan known as the Maryland Strategic Highway Safety Plan (SHSP). The SHSP provides a framework for reducing transportation fatalities and serious injuries on all public roads. A wide variety of stakeholders developed and support the implementation of the SHSP. These stakeholders crafted solutions involving engineering (planning, construction, operations, etc.), education, enforcement, and emergency medical services, with a focus on identifying the most appropriate strategies to address the particular challenges Maryland faces. Maryland has made significant progress in reducing motor vehicle fatalities and injuries despite increases in population and vehicle miles of travel, but continued vigilance and implementation of new strategies is vital to improve the safety of the transportation system.

Statewide Traffic Fatalities by Main Safety Emphasis Area*



*This chart describes the primary safety emphasis areas identified by the Strategic Highway Safety Plan and the number of fatalities that have occurred over the last 10 years within each area. Two additional areas – improve information and decision support systems and improve emergency response – are supporting strategies that will help reduce fatalities across all of the emphasis areas.

MTP STRATEGIC DIRECTION

The MTP mission, vision, goals, and objectives provide a strategic framework for MDOT to make future transportation decisions and investments. The mission and vision provide a high level perspective of what MDOT hopes to achieve for the transportation system in the future.

MISSION AND VISION

MDOT's **mission** is to: *Enhance the quality of life for Maryland's citizens by providing a balanced and sustainable multimodal transportation system for safe, efficient passenger and freight movement.*

By following this mission, MDOT strives to achieve our **vision** of a *world-class multimodal transportation system that supports a vibrant economy and an excellent quality of life for all Marylanders.*

GOALS

The Maryland Transportation Plan identifies five goals that support our mission and vision. These goals will guide the direction MDOT will take to tackle the transportation challenges Maryland is expected to face over the next 20 years. The five goals are:

- **Quality of Service:** Enhance users' access to, and positive experience with, all MDOT transportation services.
- **Safety & Security:** Provide transportation assets that maximize personal safety and security in all situations.
- **System Preservation & Performance:** Protect Maryland's investment in its transportation system through strategies to preserve existing assets and maximize the efficient use of resources and infrastructure.
- **Environmental Stewardship:** Develop transportation policies and initiatives that protect the natural, community, and historic resources of the State and encourage development in areas that are best able to support growth.
- **Connectivity for Daily Life:** Support continued economic growth in the State through strategic investments in a balanced, multimodal transportation system.

The following pages provide additional information about the goals, objectives, current programs, and future strategies to help MDOT achieve these goals.

QUALITY OF SERVICE

MDOT takes pride in providing a high level of customer service to the residents, visitors, and businesses that rely on Maryland's transportation network. The employees of Maryland's transportation agencies work hard to respond to customer needs for service that is friendly, responsive, reliable, and efficient. The Department collaborates with partners in the Modal Administrations and MDTA, as well as other State and local agencies to minimize service disruptions and ensure the smooth flow of people and goods throughout the State.

MDOT has identified three primary objectives to ensure high quality of service to the residents, visitors, and businesses that rely on the transportation system:

- Enhance customer experience and service.
- Provide reliable and predictable travel time across modal options for people and goods.
- Facilitate coordination and collaboration with agency partners and stakeholders.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- BWI Marshall Airport's Pathfinders are a group of 153 volunteers who provide face-to-face, first class customer service to all visitors at BWI Marshall Airport. Pathfinders staff information kiosks and provide roaming assistance. In 2007, they volunteered 22,263 hours at BWI Marshall Airport.
- "*E-ZPass®* on the Go" transponders are available at a variety of retail stores and MVA offices, making electronic toll payment a more convenient option for Maryland motorists and visitors.
- MVA will continue to add on-line "InfoMVA" service options and adopt a user-friendly "question and answer" structure to help customers quickly find the information they need.
- MPA will continue to use quality cargo handling initiatives to reduce damage and improve handling.
- MTA, through its Call Center, answers over 2.8 million calls annually for transit information and has reduced average response time to less than one minute.
- MTA has installed a web-based Trip Planning System that provides up to date information on the transit systems operating in Maryland.

FUTURE STRATEGIES

- MDTA will develop and administer new customer satisfaction surveys.
- MPA will improve truck turn-around times at Seagirt Marine Terminal.
- BWI Marshall Airport will increase the number of shopping and concession opportunities in the terminal.
- MTA has installed "next vehicle arrival signs" on the Route 40 Quick Bus in Baltimore, and is identifying additional appropriate bus routes where the system can be installed.

OBJECTIVE: ENHANCE CUSTOMER EXPERIENCE AND SERVICE

MDOT places Maryland's citizens first. MDOT understands that the users of the transportation system are its customers. The drivers, transit users, shippers and freight carriers, air passengers, bicyclists, pedestrians, and residents attempting to register a vehicle or obtain a license or identification card are the people that Maryland's transportation system and services are intended to support.

The Department continually monitors customer satisfaction and responds to the needs of its constituents. Many of MDOT's Modal Administrations conduct regular customer satisfaction surveys that are used to help understand the needs of the traveling public and to set performance expectations for the transportation system. MDOT is increasing internal customer service training and has implemented Customer Care Management Systems within several of its Modal Administrations. MDOT remains committed to tracking customer satisfaction and responding to customer needs.

MDOT continues to adopt new technologies to make its services more user-friendly and efficient. Investments in real-time driver and passenger information systems keep highway and transit users informed about traffic conditions and transit schedules, and allow MDOT to respond quickly to traffic crashes and other incidents.

Maryland's transportation agencies will continue to develop and maintain services that improve the experience of traveling in Maryland. MDOT's priorities for the future include increasing efficiency of service delivery and expanding on-line information systems and services.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- BWI Marshall Airport has been the #1 large-hub airport in the Northeast for on time arrival performance throughout the past several years.
- CHART's state-of-the-art Statewide Operations Center functions 24 hours a day, seven days a week, providing advanced traffic management.
- The MARCTracker system enables passengers to determine the location and status of every operating MARC train.
- MTA has implemented automatic vehicle location and passenger counting systems on its buses to improve how routes are planned and to provide information to riders.

FUTURE STRATEGIES

- MAA is developing a new customer-focused and innovative BWI Marshall Airport website to promote BWI products and services.
- MVA will implement the Central Scheduling System to allow customers to schedule appointments for MVA services and products.
- MDTA is constructing I-95 Express Toll Lanes℠, dedicated *E-ZPass* lanes, and the Intercounty Connector (an Open Road "Cash-Less" Tolling facility) to facilitate reliable travel times for customers.
- MPA is developing automated shipping information and operating systems to facilitate shipping through the Port of Baltimore.
- MDOT, SHA, and MDTA will consider and evaluate managed lanes, congestion pricing, and related strategies for future transportation investment, as appropriate.

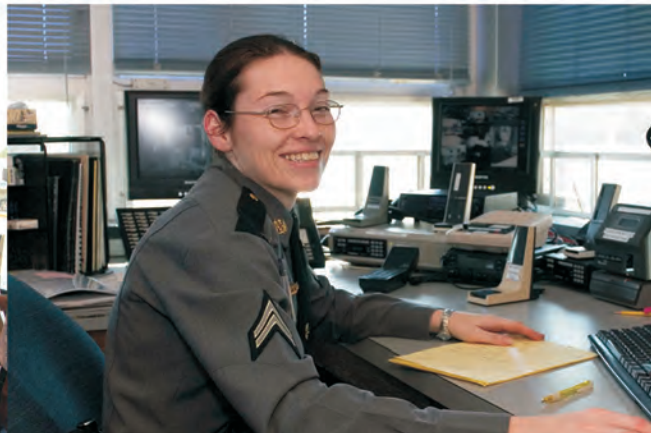
OBJECTIVE: PROVIDE RELIABLE AND PREDICTABLE TRAVEL TIME ACROSS MODAL OPTIONS FOR PEOPLE AND GOODS

Maryland's transportation system users want to get to their destinations within a reasonable and predictable amount of time. Maryland's economy depends upon the ability of the transportation system to move workers and goods throughout the State efficiently. However, increasing transportation demand caused by a growing population and economy, inefficient land use development patterns, increasingly diverse travel patterns, and other factors create congestion.

MDOT recognizes that the problem of congestion is not one that can be solved by expanding existing transportation facilities. The combination of increasing costs to build or widen highways, the lack of available right-of-way, and the impact that new highways can have on land use development and the environment mean that MDOT must focus on making the existing system as reliable as possible, through investments in technology and other strategies that manage demand and improve how the system operates, as well as through strategic enhancements to system capacity.

The Coordinated Highways Action Response Team (CHART) helps reduce highway congestion by monitoring traffic in real-time, responding to traffic crashes and other incidents, and providing information to travelers. MTA and WMATA are investing in traveler information systems that make transit options like the Baltimore and Washington bus and Light Rail systems, Metro, MARC, commuter bus services, and Paratransit easier to use and thus help reduce demand on the highway system. Similarly, *E-ZPass* and other electronic toll collection systems make toll facilities easier to navigate and help reduce delays.

MDOT will continue to invest in technology and operational strategies to minimize the impact of congestion on residents, visitors, and businesses.



OBJECTIVE: FACILITATE COORDINATION AND COLLABORATION WITH AGENCY PARTNERS AND STAKEHOLDERS

In an era of limited funding and growing financial and environmental challenges, it is vital for MDOT to work with multiple decision makers, including State agencies, local governments, regional organizations, and other stakeholders. The Department collaborates with these partners to strategically prioritize enhancements of MDOT's services, to leverage MDOT's investments, and to identify the ways in which the State of Maryland can provide services more efficiently and effectively.

MDOT works collaboratively with its Modal Administrations, MDTA, and stakeholders on a variety of issues that are important to the movement of people and goods throughout the State. MDOT partners with other State agencies on major planning efforts that affect transportation and other related issues, such as the State Implementation Plan for air quality, the Climate Action Plan, and the State Development Plan. At the regional level, MDOT works closely with regional organizations and local governments including providing planning support for Metropolitan Planning Organizations and other regional agencies.

MDOT also works with local and private partners on major development and freight issues. MDOT is exploring opportunities to partner with municipalities and developers for transit-oriented development around some of the more than 75 rail, Light Rail, and subway stations throughout the State. MDOT also works with private freight rail carriers and trucking companies on freight planning in the State to help ensure the efficient movement of goods.

The Department will continue to pursue partnerships that help it achieve the goals of this Plan and meet the needs of its stakeholders. MDOT will support programs that enhance local communities, protect environmental resources, and improve mobility.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- BWI Marshall Airport's concession program has been recognized by *Airport Revenue News* with several awards.
- SHA sponsors local community outreach initiatives like adopt-a-highway and the highway beautification Partnership Planting Program.
- MVA provides important data for programs such as organ donor, *E-ZPass*, child support enforcement, and Motor Voter.

FUTURE STRATEGIES

- MAA will continue efforts to increase accessibility to BWI Marshall Airport by multiple transportation methods (public transportation, light rail, bus, taxi, and personal vehicle), and to provide convenient service to airports around the world.
- MDOT will continue to provide funding and planning assistance to municipalities and Metropolitan Planning Organizations to guide planning efforts, secure Congestion Mitigation and Air Quality funding, and foster collaboration between localities and transportation agencies.
- MTA will work to foster cooperative relationships to support system connectivity between Locally Operated Transit Systems, including easy transfers between and potential integration among, different systems.
- MDOT will support the Maryland Department of Planning with the first State Development Plan, which will provide a vision for growth and development in the State to guide policy actions by MDOT and other State agencies to encourage Smart Growth.

SAFETY & SECURITY

MDOT works diligently to ensure that Maryland's roadways, railways, bridges, airports, seaports, and transit systems are safe and secure. Improving safety also involves informing system users, enforcing regulations, and keeping Maryland's transportation infrastructure sound. Using the latest technology and communication capabilities, MDOT addresses threats to personal security and transportation assets to preserve the integrity of the transportation system. The Department also maintains emergency response plans to ensure residents' safety in the event of natural or man-made disasters.

MDOT has identified three primary objectives to help ensure that the transportation system is safe and secure and that MDOT and other State agencies are in a position to quickly respond to safety issues and security threats as they arise:

- Reduce the number and rate of transportation related fatalities and injuries.
- Secure transportation assets for the movement of people and goods.
- Coordinate and refine emergency response plans and activities.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- The MVA Motorcycle Safety Program coordinates voluntary training courses to help new and experienced riders develop the special skills and mental strategies necessary for safe and responsible motorcycle operation.
- CompStat – a crime tracking database and weekly report – allows MTA officials to track and improve responses to incidents on Maryland's transit systems.
- Aggressive enforcement efforts of the School Bus Safety program ensure the safety of bus drivers, school children, and motorists.
- Facilitated by SHA, State and local stakeholders developed implementation strategies to address the emphasis areas of the Maryland Strategic Highway Safety Plan.
- MTA has installed train detection and warning systems at select Metro stops and MARC stations to minimize risks to passengers and workers.

FUTURE STRATEGIES

- MAA will expand CCTV coverage to monitor, record, and respond to security and safety incidents at BWI Marshall Airport.
- MVA will offer the Graduated Licensing System requiring additional enhanced education and driving experience for new drivers to ensure they have proficient driving knowledge and skills.
- Strategies to reduce the number of fatalities and injuries on all roads in Maryland identified in the Strategic Highway Safety Plan will continue to be implemented, updated, and tracked.
- MDOT is developing a Statewide Freight Plan and a State Rail Plan that will address the safety of truck and rail freight movement through the State.

OBJECTIVE: REDUCE THE NUMBER AND RATE OF TRANSPORTATION-RELATED FATALITIES AND INJURIES

MDOT's priority is to ensure the safety of all transportation system users, Department employees, and contractors. Safety is an integral part of all MDOT transportation plans, infrastructure development, and daily operations. SHA and MDTA have identified safety as the top priority for the highway system.

Creating a safe transportation system means many things. One of the most important elements of safety is to reduce fatalities and injuries on all roads in Maryland. Traffic crashes of all types can have tragic consequences for the individual families involved, have a substantial economic cost, and are also the cause of approximately 25 percent of congestion in the U.S. Although Maryland's fatality and personal injury rates are below the national average, MDOT, its Modal Administrations, and MDTA believe that MDOT can significantly reduce the number of crashes, injuries, and fatalities through a variety of engineering, education, and enforcement strategies.

The Maryland Strategic Highway Safety Plan (SHSP) provides a framework to reduce fatalities and injuries on all public streets and highways. The SHSP includes a process to identify the safety areas of the greatest need (i.e., those that generate the most fatalities and injuries) and to develop strategies that have proven potential to reduce fatalities and injuries on the transportation system.

MDOT will continue to track and address safety challenges on Maryland's roads, rail and transit systems, airports, and ports. MDOT's regular collaboration with law enforcement, emergency responders, and local public agencies is an essential component of improving safety in Maryland.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MPA provides safe and secure cargo handling facilities that exceed Department of Homeland Security (DHS) requirements. In 2007, MPA was awarded $1.9 million in Federal Port Security Grants.
- MPA annually reviews its security plans to identify and address security vulnerabilities with meaningful and cost-effective solutions.
- BWI Marshall Airport has passed the annual FAA Part 139 safety certification inspection with zero repeat discrepancies for four years in a row.
- Zone Enforced Unified Sweeps, or Operation ZEUS, provides highly visible, unannounced police sweeps of MTA facilities.
- MTA has, and will continue to add, Metro and Light Rail stations to a new CCTV system linked to the MTA Police Monitoring System.

FUTURE STRATEGIES

- MAA will explore the use of emerging technologies, such as biometrics (i.e., fingerprint identification/ authorization), to maintain safe and secure airport facilities.
- MDOT will implement Federal mandates for bridges, seaports, airports, and highways.
- MVA will prepare actions and outreach to meet the DHS benchmarks as part of the Homeland Security Real ID Act.
- SHA will pursue educational initiatives, such as the Maryland Motor Carrier handbook and Maryland Truckers' Map, to improve motor carrier safety compliance.

OBJECTIVE: SECURE TRANSPORTATION ASSETS FOR THE MOVEMENT OF PEOPLE AND GOODS

MDOT is committed to protecting its customers from both external security threats and the dangers of aging and inadequately maintained infrastructure. Infrastructure failure can have disastrous consequences, both in terms of loss of life and the economic consequences of missing critical transportation links. The Department conducts regular inspections and repairs to ensure that State bridges, seaports, and highways allow for the secure movement of people and goods.

MDOT, its Modal Administrations, and MDTA work to address all potential security threats to the highway network, Port facilities, airports, and transit systems. MDOT regularly works with State, Federal, and regional agencies to monitor freight traveling on Maryland's highways, railroads, and through the Port of Baltimore to ensure that goods move safely and securely throughout the State. The Maryland Transportation Authority Police – a nationally accredited force of more than 500 law-enforcement professionals – are responsible for security and law enforcement at MDTA highways, tunnels and bridges, the BWI Marshall Airport, and MPA terminals at the Port of Baltimore. Both the Maryland Aviation Administration and the Maryland Port Administration work diligently to ensure compliance with Federal security requirements and inspections.

The Department's priorities for the future include strengthening existing security programs and working with the Department of Homeland Security to reach national security benchmarks.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MAA has mutual aid agreements with emergency response agencies in the vicinity of BWI Marshall Airport to ensure quick response to emergencies in adjacent jurisdictions.
- MDOT supports the Maryland Emergency Management Agency in implementing Emergency Support Function #1 (transportation) for emergency response, recovery operations, and other disaster assistance initiatives.
- MTA's biannual Bus Operator Recertification Program includes training in sensitive issues involving homeland security.

FUTURE STRATEGIES

- MAA will continue to work with the Federal Aviation Administration and aircraft user groups to ensure that airport safety measures are maintained and improved.
- MDOT will develop a plan to assess the risks to transportation infrastructure, mobility, and emergency management of sea level rise and other climate change impacts, and to identify adaptation options.
- MVA will continue to use the Automated Compulsory Insurance System and work with the insurance industry to ensure that vehicles registered in Maryland are in compliance with insurance requirements.
- SHA will continue to improve the State's ability to prepare for and respond to natural disasters and homeland security incidents by completing emergency traffic management and evacuation plans, and by providing National Incident Management System (NIMS) training to key staff.

OBJECTIVE: COORDINATE AND REFINE EMERGENCY RESPONSE PLANS AND ACTIVITIES

While MDOT and the State of Maryland work hard to help prevent catastrophic events, the Department also focuses on emergency preparedness to address storm surges, terrorism, hazardous material spills, or other potentially catastrophic events if, and when, they occur. The transportation system as a whole plays a vital role in helping to minimize the impacts of catastrophic events through quick and timely evacuations and information. The Maryland Emergency Management Agency views transportation as the number one emergency support function and MDOT is prepared to provide the resources and leadership needed to assist in all emergency response efforts.

Maryland's transportation agencies collaborate with police, firefighters, and other officials to ensure that emergency responses are timely, coordinated, and effective. Maryland's bus drivers, Port workers, airport employees, MDTA police, MTA police, and others all play important roles in preventing and responding to major incidents. MDOT emergency management staff receives regular training on how to identify and address security issues. The Department works closely with law enforcement agencies to identify evacuation routes and improve emergency response activities, and participates in regular exercises to ensure preparedness.

MDOT will refine emergency response plans and continue to participate in emergency response exercises with the Maryland Emergency Management Agency to address future safety and security concerns in a cost-effective manner.

SYSTEM PRESERVATION & PERFORMANCE

ACCOMPLISHMENTS AND ONGOING EFFORTS

- SHA and MDTA continue to reduce the number of structurally deficient bridges through an aggressive bridge replacement and rehabilitation program.
- MDOT uses "energy performance contracting" to develop, install, and finance projects to improve energy efficiency and maintenance costs for facilities.

FUTURE STRATEGIES

- BWI Marshall Airport will continue to fund system preservation projects, including improvements to airfield pavement and terminal facilities.
- MTA and WMATA will invest in a mid-life overhaul of Washington Metro, Baltimore Metro and Light Rail, and MARC passenger cars.
- MPA's Dredged Material Management Program will continue to address long-term material placement needs to support the Port of Baltimore as an economic and shipping center.
- SHA and MDTA will continue to maintain State roadway pavements and a rigorous bridge inspection program to ensure that all State roads and bridges open to the public can safely carry legally loaded vehicles.

MDOT has made substantial investments in Maryland's multimodal transportation system. In an era of limited funding and growing costs, it is vital to protect this investment and make the most of it. MDOT's "preserve first" policy means that MDOT's primary responsibility is to maintain the transportation system in a condition that is safe and efficient. Taking care of the existing transportation system, and building new infrastructure where it is strategically needed and where funds are available, helps maximize the return on Maryland's transportation investments by lowering long-term costs and preserving valuable resources. MDOT also focuses on providing solutions that use resources efficiently. Technology, incident response, and other efforts can help to make the transportation system function more smoothly.

MDOT has identified two primary objectives to help make cost-effective use of MDOT's resources through preservation of existing investments, and through enhanced operation and management of the system:

- Preserve and maintain the existing transportation network.
- Maximize operational performance and efficiency of existing systems.

OBJECTIVE: PRESERVE AND MAINTAIN THE EXISTING TRANSPORTATION NETWORK

The State of Maryland is home to an extensive network of highways, transit systems, railways, airports, and seaports. MDOT's first priority is to preserve these existing investments for the residents, visitors, and businesses that depend on them. MDOT expects to spend approximately $800 million annually on system preservation over the next six years.

As transportation infrastructure ages, regular, preventative maintenance helps extend the life of transportation assets and reduce long-term costs. Maintenance and preservation includes regular repaving of highways, runways, and marine terminals, servicing transit and other State vehicles, and other significant minor capital expenditures, as well as picking up litter, clearing snow and ice, clearing storm drains, and many other activities that help ensure a fully functioning transportation system.

Bridges are vital links in Maryland's transportation network and the cost of failure is high. Through system preservation projects like Maryland's Bridge Rehabilitation and Replacement Program, MDOT has maintained an inspection program for SHA, MDTA, and MTA's bridges and tunnels that exceeds Federal requirements and prioritizes investments in upgrades. These efforts ensure Maryland's transportation network will continue to be safe and provide a high level of service as the State grows.

SHA and MDTA expend significant resources to maintain the State highway system, including clearing litter and debris, roadside maintenance (mowing, removing overgrowth, landscaping), maintaining features (lights, guardrails, pavement lines, signs), clearing snow, and maintaining rest areas. SHA tracks customer satisfaction with these features and allocates resources, in part, based on customer feedback.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- The Telework Partnership with Employers initiative provides employers with consulting services to start or expand telecommuting programs and reduce peak-hour demand on Maryland's roadways.
- "SmarTrip" fare collection systems on WMATA transit vehicles have increased on time performance, fare recovery rates, and customer convenience.
- Through Commuter Choice, MTA works with private businesses on tax benefits for providing transit benefits to employees who use transit or rideshare programs.

FUTURE STRATEGIES

- MDTA is currently implementing the next generation of *E-ZPass®* technology, which will allow for higher-speed passage at toll plazas, as well as open road tolling.
- MVA will continue to market and develop on-line services, thereby increasing service efficiency and decreasing wait times at branch offices.
- MTA will complete implementations of a uniform transit pass in conjunction with Washington's WMATA Smart Card.
- SHA's aggressive traffic signal retiming and optimization program will seek to minimize delay on arterial highways for the traveling public.

OBJECTIVE: MAXIMIZE OPERATIONAL PERFORMANCE AND EFFICIENCY OF EXISTING SYSTEMS

Maryland's businesses, residents, and visitors rely on the Department to serve increasing transportation demand with declining funding and limited space to expand transportation infrastructure. To meet growing demand, MDOT is investing in technology and focusing on improving the operation of the transportation system. Operational investments include:

- Quickly clearing incidents. CHART provides incident management services for State highways in urban areas, helping to limit the congestion impacts of crashes, which contribute to one-quarter of the congestion drivers experience in the U.S.
- Providing information to system users to help them make better decisions about when and where they travel—examples include variable message signs for highway and transit users and parking availability information at BWI Marshall Airport garages.
- Using technology to improve system efficiency, such as toll collection technologies that reduce delays at toll plazas and Global Positioning Satellite systems that can locate vehicles and lead to more efficiently designed transit routes.

In all of its functions, the Department strives to maximize the efficient use of resources, whether that means selecting projects that are cost-effective or cross-training staff so that they can do their jobs more efficiently. Going forward, MDOT will continue to monitor the transportation system and identify opportunities to improve performance through operational improvements and technology.

ENVIRONMENTAL STEWARDSHIP

MDOT believes that transportation policies and decisions should protect the natural, community, and historic resources of the State and encourage development in areas that are best able to support growth. MDOT takes a comprehensive approach to transportation planning and investment focused on minimizing the negative impacts of projects and mitigating those that cannot be avoided. MDOT is working with other State agencies to develop plans to address key environmental challenges, including the Climate Action Plan and the State Development Plan. Using sound approaches, growth and development can take place while preserving and protecting irreplaceable resources and maintaining the high quality of life Maryland affords.

MDOT has identified three primary objectives to help protect the environment and support efficient land use development:

- Coordinate land use and transportation planning to better promote Smart Growth.
- Preserve and enhance Maryland's natural, community, and historic resources.
- Support initiatives that further our commitments to environmental quality.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- SHA has implemented Context Sensitive Design/ Thinking Beyond the Pavement strategies in highway design and planning that take into account the local context when planning for highway investments.
- MTA and MDOT facilitated the development of Symphony Center, a six-acre site adjacent to Light Rail in downtown Baltimore that has provided a catalyst for Westside redevelopment efforts.
- MPA encouraged the City of Baltimore to develop the Maritime Industrial Zoning Overlay District to reduce conflicts between maritime shipping and mixed-use development by prohibiting mixed-use and planned unit developments near deep-water industrial areas.
- MDOT is conducting ongoing work to prepare new sites for transit-oriented development at State Center in Baltimore, Owings Mills Metro station in Baltimore County, Savage MARC station in Howard County, and the Cromwell Light Rail station in Anne Arundel County.

FUTURE STRATEGIES

- MTA and MDOT are working to ensure that new development activity as a result of BRAC incorporates high density and pedestrian elements, and is transit-friendly.
- MAA will work with State and county governments to promote environmental sustainability within the community that the Airport resides.
- MVA is expanding its on-line offerings to reduce the need for travel and considering land use and transportation implications when planning MVA branch locations.
- MPA will work to ensure that sufficient land adjacent to deep water is available to respond to new business opportunities and to support anticipated cargo growth.
- SHA is developing and implementing access management and long-term corridor improvement plans in key planned growth areas in partnership with local governments.

OBJECTIVE: COORDINATE LAND USE AND TRANSPORTATION PLANNING TO BETTER PROMOTE SMART GROWTH

Transportation investments can play a key role in supporting and encouraging Smart Growth—the concept that future growth should be efficient, compact, and sustainable. Under Governor O'Malley's **Smart, Green & Growing** initiative, Maryland promotes Smart Growth that encourages development where there is existing infrastructure, preserves valuable natural resources, reduces the cost to taxpayers of building new infrastructure (including transportation), and provides a high quality of life.

Transportation both supports development by providing the means for residents to connect to businesses and goods to connect to consumers—and encourages development—by making planned growth areas more accessible to homes and businesses. A new Interstate highway lane or transit station can make it easier and faster to reach desired destinations. At the same time, new transportation infrastructure can induce travel by reducing the cost of transportation, thus inadvertently supporting inefficient development patterns.

With growing public concern about air quality, climate change, energy costs, and congestion, MDOT has a renewed commitment to Smart Growth. MDOT supports transit-oriented development, working with government agencies, municipalities, private developers, and communities to redevelop transit station areas and surrounding properties into denser, mixed-use communities.

MDOT will continue to support Statewide planning efforts, including the Smart Growth Sub-Cabinet and the Maryland Department of Planning's State Development Plan, which will provide a long-range vision for sustainable growth and development in Maryland, similar to the vision that the MTP provides for transportation.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MAA has an extensive recycling program at both BWI Marshall Airport and Martin State Airport.
- MPA has developed and implemented processes and procedures through an Environmental Management System to identify and incorporate best practices into daily operations that improve environmental impacts.
- Maryland has designated 19 scenic byways that encompass 2,487 miles of beautiful roads and offer a taste of Maryland's scenic beauty, history, and culture.
- SHA administers the Recreational Trails Program, which funds the development of community-based trails for pedestrian uses (hiking, running, wheelchair use), bicycling, in-line skating, equestrian use, cross-country skiing, off-road motorcycling, all-terrain vehicle riding, and four-wheel driving.
- MPA is clearing debris and restoring a mix of wetland and other natural habitat at Masonville Cove in southern Baltimore City, as well as building a community environmental center as part of constructing the Masonville dredged material containment facility.

FUTURE STRATEGIES

- MVA will initiate a new Vehicle Emissions Inspection Program (VEIP) and re-equip existing VEIP stations with new technology to monitor and protect air quality in Maryland now and for the future.
- MPA will investigate potential innovative reuses of dredged materials.
- MAA will continue to adopt and coordinate resource plans with State and local government agencies.
- MTA will encourage transit-oriented development at existing and new transit and rail stations to help maintain existing communities and their natural and historic resources.
- SHA will continue to deliver an Environmental Stewardship Program with actionable strategies to improve watershed restoration, preserve historic bridges, reduce invasive species, enhance the appearance of highways, and reduce the consumption of energy and materials in SHA's business practices.

OBJECTIVE: PRESERVE AND ENHANCE MARYLAND'S NATURAL, COMMUNITY, AND HISTORIC RESOURCES

The State of Maryland possesses important natural, community, and historic resources that contribute to the State's quality of life. Maryland has over 7,000 miles of shoreline on the Chesapeake Bay and the Atlantic Ocean, 15 National Parks and Historic Sites, 260,000 acres of State parks, and 600,000 acres of wetlands. Maryland's historical and cultural resources include archeological sites, Civil War and African-American historical sites, and historic bridges and lighthouses. Understanding that natural resources are limited, MDOT has committed to reducing waste, minimizing the negative impacts of transportation investments, protecting the natural environment, and ensuring that future generations will be able to enjoy these resources.

MDOT works to ensure that transportation investments and system operations are consistent with Federal and State environmental requirements, including the National Environmental Policy Act, the Clean Air Act and amendments, the Clean Water Act, and the environmental planning requirements of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). MDOT works closely with its State agency partners who have responsibility for issuing permits across a range of potential environmental impacts, both to minimize potential impacts and to ensure the efficient issuing of permits.

MDOT will continue to include environmental considerations in all transportation investment decisions and work with partners to protect the natural, historic, and community resources that contribute to Maryland's quality of life.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MTA has purchased hybrid diesel/electric buses for use in the Baltimore transit system.
- MVA oversees the testing of over 1.5 million vehicles annually at Maryland's VEIP stations.
- MPA has entered into a voluntary disclosure agreement with the U.S. Environmental Protection Agency that enables independent auditors to validate that the MPA has taken appropriate actions with respect to environmental compliance obligations.
- In FY2008, SHA planted over 17,000 trees, more than 10,000 of which were planted over and above our forest mitigation needs.

FUTURE STRATEGIES

- MPA is using ultra low sulfur/biodiesel fuel for 100 percent of the MPA's fleet vehicles, terminal equipment, and fire protection systems and has implemented a diesel emission reduction program that will install diesel oxidation catalysts on all rubber tired gantry cranes and one ship-to-shore crane by the end of 2008.
- MVA will expand the menu of services that can be offered as alternative delivery options (via phone, internet, or kiosk) to reduce vehicle usage and the need to travel to MVA facilities.
- MAA will implement a compliance-focused Environmental Management System and evaluate policies that would help guide airports towards environmental sustainability and carbon neutrality.
- MTA will continue fleet vehicle replacement and overhaul that ensures a more energy efficient fleet, including expanding the use of hybrid buses.
- SHA will continue participating in the Green Highways Partnership by supporting watershed-based stormwater management and exploring innovative stormwater management practices, including low impact development strategies and water quality banking.

OBJECTIVE: SUPPORT INITIATIVES THAT FURTHER OUR COMMITMENTS TO ENVIRONMENTAL QUALITY

MDOT's commitment to environmental quality goes beyond meeting State and Federal regulations. Though State and Federal initiatives over the past several decades have provided Maryland with the opportunity to improve and maintain a cleaner, healthier environment, MDOT believes that the transportation sector must take proactive responsibility for its impact on the environment.

MDOT considers environmental consequences and opportunities in all of its actions, whether building new infrastructure, operating the highway and transit systems, or running the various offices that make up the Department. MDOT considers both large and small actions that contribute to environmental quality. MDOT developed a headquarters building that is a Leadership in Energy and Environmental Design (LEED™ Gold) certified building using high performance building standards. SHA is working to restore wetlands and improve streams throughout the State, above and beyond what is required to address specific project impacts. Several agencies are using hybrid and alternate fuel vehicles in their fleets to minimize gasoline consumption. MDOT continues to work to increase recycling and innovate reuse of materials.

Even as MDOT works to meet existing standards and address today's challenges, MDOT is looking ahead to tomorrow's concerns. MDOT is working with the Governor's Commission on Climate Change to identify State and regional strategies to reduce greenhouse gas emissions from transportation sources, including purchasing more efficient fleet cars, purchasing locomotives and buses with reduced emissions, mandating that new buildings incorporate "green features," and minimizing the greenhouse gases generated by MDOT's activities.

CONNECTIVITY FOR DAILY LIFE

Maryland's transportation network serves multiple purposes. It gets employees to work; provides access to recreation, shopping, and services; and forms the backbone of the State's economy, allowing Maryland to be more competitive in domestic and global markets. As the State's population and economy grows, transportation demand will increase congestion on the existing network. To meet the needs of tomorrow's residents, visitors, and businesses, MDOT will continue to invest in a multimodal network.

MDOT has identified three primary objectives to support the growth and development of the State and help it remain competitive in the global economy:

- Provide balanced, seamless, and accessible multimodal transportation options for people and goods.
- Facilitate linkages within and beyond Maryland to support a healthy economy.
- Strategically expand network capacity to manage growth.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MTA and WMATA collaborated to provide the Commuter Bus Transit Link Card that allows travelers to easily transfer between systems.
- MDOT and MTA sponsor the Commuter Choice Maryland program, which provides information to employers and commuters about commuting options and financial incentives, such as the College Pass Program.
- MVA provides driver and vehicle credentials to residents and manages the Commercial Driver's License Program and International Registration Plan to ensure efficient movement of travelers and freight on Maryland roads.
- MTA has installed bicycle racks on the buses it operates in Baltimore to allow for easier commuting for cyclists.
- MDOT has completed a Truck Parking Study and is addressing the need for additional overnight truck parking capacity in the forthcoming Statewide Freight Plan.

FUTURE STRATEGIES

- MDOT will continue to implement the 20-Year Bicycle and Pedestrian Access Master Plan, in conjunction with SHA and local jurisdictions.
- MAA will work across modes to maintain and improve passenger and freight accessibility to BWI Marshall Airport.
- MPA will pursue container and niche cargo, such as forest products, automobiles, and farm and construction equipment.
- SHA will continue to increase the number of park-and-ride facilities throughout the State to expand mobility options and reduce the number of vehicle miles traveled.

OBJECTIVE: PROVIDE BALANCED, SEAMLESS, AND ACCESSIBLE MULTIMODAL TRANSPORTATION OPTIONS FOR PEOPLE AND GOODS

Traveling in Maryland is a daily necessity and should be convenient and uncomplicated for as many people as possible. MDOT strives to provide travel options for passengers and goods that are easy to access, use, pay for, and understand.

MDOT provides a range of transportation options across transit, highway, air, marine, and non-motorized travel methods. MDOT's objective is to provide balance among those options, such that residents, visitors, and businesses have choices available for as many trips or shipments as possible. The ability for travelers to access BWI Marshall Airport by automobile, regional transit, and intercity rail provides a model for how to provide options to travelers.

Balance also means considering all options when making transportation investment decisions. MDOT is working with private railroads and Federal partners to identify potential improvements to the freight rail system in Maryland. The Howard Street Tunnel in Baltimore is a key chokepoint that limits the ability to move intermodal containers by rail through Maryland. Intermodal containers are one of the fastest growing segments of international shipping. Investing in the private rail system may be appropriate if there are significant benefits to the residents and businesses of Maryland in the form of reduced truck traffic on the highway system or economic growth in the State.

MDOT will continue working to integrate services across travel methods and identify the most cost-effective transportation investments to provide a balanced transportation system for the future.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MPA had six consecutive record breaking years of general cargo growth and has significantly increased passenger cruise ship service through the Port of Baltimore.
- MDTA is planning, developing, and implementing Express Toll Lanes℠ in the I-95 Corridor north of Baltimore.

FUTURE STRATEGIES

- MAA will continue to work with carriers and other airport partners to enhance air service.
- MDOT will promote and link non-motorized trails throughout the State through a Strategic Trails Implementation Plan.
- MDOT and MPA will work with the Federal Railroad Administration and Class I railroads CSX and Norfolk Southern to improve freight rail access to the Port of Baltimore and to address major freight rail chokepoints, such as the Howard Street Tunnel.
- MTA will work to secure increased funding for fixed-route service that provides meaningful system connections and improves mobility for all transit users.
- MTA will strive to implement the MARC Growth and Investment Plan.

OBJECTIVE: FACILITATE LINKAGES WITHIN AND BEYOND MARYLAND TO SUPPORT A HEALTHY ECONOMY

In today's economy, Maryland businesses must compete with other states and other countries around the world. Maryland's transportation network moves residents to work, visitors to tourist attractions, and goods to businesses and consumers. The Port of Baltimore is a significant economic contributor to the State of Maryland, both as an employer and as a contributor to the regional economy, and BWI Marshall and Martin State Airports provide significant passenger, freight, and military aviation services.

Maryland's connections to other states and the District of Columbia are also vital for the functioning of the State's economy. Over 600,000 workers commute between Maryland and Virginia; Washington, D.C.; Delaware; Pennsylvania; and West Virginia. Maryland's integration into the regional economy requires infrastructure connections and cooperation with other states. Highway and transit operators from the adjacent states and Washington, D.C. must work together so that passengers and freight can move easily from one state to another. Residents, visitors, and businesses expect a seamless trip across State boundaries.

MDOT continues to develop and preserve transportation assets in Maryland to help support the economy. As the population and businesses shift across the State, MDOT will maintain awareness of the State's changing needs by planning and implementing projects that provide solutions for residents and businesses.

ACCOMPLISHMENTS AND ONGOING EFFORTS

- MAA is developing a BWI Marshall Master Plan Update to identify improvements to facilities, airfield capacity, access, and overall infrastructure for the next 25 years.
- MDOT has been supporting the Base Realignment and Closure (BRAC) Sub-Cabinet to plan for an influx of military personnel and jobs and the resulting impact on the transportation system.
- MPA continues to pursue container and niche cargo markets (e.g. forest products, automobiles, farm and construction equipment) to increase cargo tonnage passing through the Port of Baltimore.

FUTURE STRATEGIES

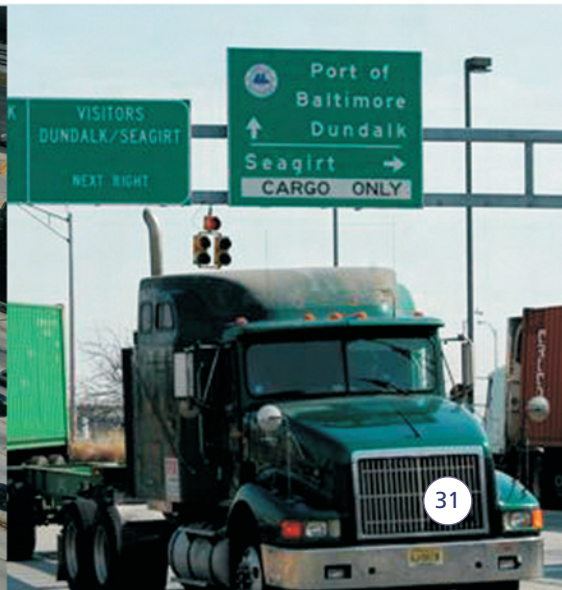
- MAA is working to maximize existing infrastructure to provide sufficient capacity to accommodate aviation demand.
- MVA is providing continuous Information System accessibility to provide driver and vehicle information to identified Federal, State, and local partners.
- MTA is evaluating adding service to high demand locations where possible, including commuter bus service to Washington, D.C. and Baltimore, and BRAC locations where warranted.
- MDOT will extend the Guaranteed Ride Home presently operated in the Washington Region to the Baltimore Region.
- SHA and MDTA are working to complete the Intercounty Connector to link existing and proposed development areas between the I-270/I-370 and US 1/I-95 corridors—including BWI Marshall Airport and the Port of Baltimore—for enhanced mobility, safety, and goods movement.

OBJECTIVE: STRATEGICALLY EXPAND NETWORK CAPACITY TO MANAGE GROWTH

Future population and job growth have the potential to seriously impact the transportation network. No one project or program can solve the challenges of growth and congestion, and the Maryland Transportation Plan identifies a range of options, including supporting Smart Growth, travel demand management, and other strategies that reduce demand on the transportation system; improving system operations to make the most efficient use of the available transportation system; and providing transportation options for as many Maryland travelers as possible.

Programs and policies aimed at reducing demand are vital to extending the useful life and effectiveness of existing assets. MDOT supports travel demand management strategies in the Baltimore and Washington metropolitan areas that strive to increase the use of transit, carpooling, and teleworking by providing incentives to employers and employees. These initiatives help reduce demand for highway use during peak travel periods and can reduce the need for costly highway expansion.

Future investments in highway capacity and transit services must be carefully considered and well placed. The cost of raw materials needed for construction, labor, and energy is increasing much faster than transportation revenues. New infrastructure should help move more people and goods, support compact land use development, and be contemplated only when other, lower cost options have already been exhausted or are not feasible. In the future, MDOT will continue to consider a balance of investments across highways, transit, rail, and non-motorized options.



PUTTING THE MTP INTO PRACTICE

MDOT's Modal Administrations and MDTA put the MTP into practice every day—through the projects we advance, the way we conduct day-to-day business, and in the solutions we consider to address future needs. To achieve the MTP goals and objectives, Maryland's transportation agencies must rely on their employees' expertise and dedication to excellence. One of MDOT's strengths is its successful recruitment and retention of quality employees who deliver transportation services to our customers every day. MDOT is more than asphalt, concrete, buses, and trains—MDOT is the people dedicated to advancing Maryland's economy through transportation services for all Marylanders, visitors, and businesses.

Maryland's transportation agencies have an accomplished record in delivering safe, efficient transportation options for Maryland's residents and businesses, but MDOT recognizes that it must constantly work to improve on what has already been accomplished. The MTP highlights the specific strategies that MDOT, its Modal Administrations, and MDTA will pursue in order to realize MDOT's vision of *a world-class, multimodal transportation system that supports a vibrant economy and an excellent quality of life for all Marylanders.*

USING PERFORMANCE RESULTS

Tracking performance over time encourages Maryland's transportation agencies to implement management and operational strategies that achieve strategic goals. This results-oriented approach promotes transparency and supports decision-making that maximizes the return on the State's investment.

Maryland's transportation agencies regularly set service standards through frequent and transparent performance monitoring. MDOT's 2009 update of the MTP addresses current and future transportation conditions through new goals and objectives for Maryland's transportation network that reflect the needs of Maryland's governments, businesses, and citizens. These goals and objectives provide a framework for making policy, program, and project decisions over the next five years, and also guide the development of the performance measures contained in MDOT's Annual Attainment Report on Transportation System Performance.

The Annual Attainment Report evaluates the State's implementation of the MTP and delivery of the Consolidated Transportation Program (CTP), which is a detailed list of transportation projects proposed for construction, development, and evaluation over the next six years. The measures contained in the Attainment Report drill down to assess core agency functions and evaluate the progress of the policies promoted by the MTP goals and objectives.

The 2009 Attainment Report describes how Maryland's transportation agencies achieve Statewide transportation goals. The Report presents measurable progress toward achieving performance targets related to specific Modal Administration functions (i.e., transit, air travel, highways) and outlines strategies for improving performance in the future. Examples of Modal Administration specific performance measures presented in the 2009 Attainment Report are shown in the table below.

PERFORMANCE MEASURE HIGHLIGHTS FROM THE 2009 ATTAINMENT REPORT	
QUALITY OF SERVICE	
MTA:	Percent of service provided on time
MVA:	Branch office customer visit time versus customer satisfaction rating
SAFETY & SECURITY	
MAA:	Rate of airfield ramp incidents per 1,000 operations
SHA & MDTA:	Annual number and rate of traffic fatalities and personal injuries on all roads in Maryland
SYSTEM PRESERVATION & PERFORMANCE	
MPA:	Revenue versus operating expenses
SHA:	User cost savings for the traveling public due to incident management
ENVIRONMENTAL STEWARDSHIP	
MDOT:	Transportation-related greenhouse gas emissions
MVA:	Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program versus customer wait time
CONNECTIVITY FOR DAILY LIFE	
MTA:	Average weekday transit ridership
SHA:	Percent of freeway lane-miles and arterial lane-miles with average annual volumes at or above congested levels

Maryland Department of Transportation

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MARYLAND
Smart, Green & Growing

This document is prepared pursuant to Transportation Article Section 2-103.1 of the Annotated Code of Maryland.
Additional copies are available by calling (410) 865-1277; Toll Free (888) 713-1414
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