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# 2012 Annual Attainment Report

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## on Transportation System Performance

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Implementing the Maryland Transportation Plan &  
Consolidated Transportation Program

*Martin O'Malley, Governor  
Anthony G. Brown, Lt. Governor  
Beverley K. Swaim-Staley, Secretary*



*Beverley K.  
Swaim-Staley*

Maryland Secretary  
of Transportation

## Message from the Secretary of Transportation

On behalf of Governor Martin O’Malley, I am pleased to present Maryland’s 2012 Annual Attainment Report on Transportation System Performance. Every year the Maryland Department of Transportation (MDOT) publishes the Annual Attainment Report on Transportation System Performance to identify successes, challenges, and strategies for improving the transportation services we deliver to Marylanders through implementation of the goals and objectives in the Maryland Transportation Plan (MTP). Under Governor O’Malley’s leadership, we continue to make progress in preserving and improving the state’s transportation system, while supporting Maryland’s economic competitiveness, environmental stewardship, and quality of life.

Addressing our transportation needs during these difficult economic times requires careful and efficient management, operation and investment in the transportation system. In addition to implementing aggressive cost control measures, MDOT is also engaging local governments and the private sector to address long-term transportation challenges. The Blue Ribbon Commission on Maryland Transportation Funding, initiated by the legislature to address funding challenges, has submitted a final report with both financial and programmatic recommendations. The Maryland General Assembly is expected to discuss the recommendations during the 2012 Session.

In addition to promoting cost efficient transportation choices, MDOT is also focused on building a more sustainable and environmentally conscious transportation network. As part of Governor O’Malley’s *Smart, Green & Growing* initiative, MDOT is implementing programs to facilitate walking and bicycling as low-cost, environmentally friendly, and healthy transportation alternatives. This year, MDOT launched two new Cycle Maryland programs that will direct an additional \$12 million to improve bicycling infrastructure in the state.

Recognizing the importance of transportation infrastructure investment for economic development and job creation, MDOT also prioritizes resources to support key economic development initiatives. This year, MDOT commenced construction at the Owings Mills Metro Centre, which is one of the state’s 14 designated Transit-Oriented Development (TOD) projects. We have partnered with the City of Baltimore and residents and community associations in West Baltimore, to revitalize the West Baltimore Maryland Area Rail Commuter (MARC) Station, including demolition of the “Highway to Nowhere” (former I-170 construction). Improvements underway at BWI Marshall Airport include an increase in nonstop destinations, and airfield, terminal, and landside access improvement projects that will enhance domestic and international passenger and cargo opportunities. The ongoing marine terminal investments at the Port of Baltimore, including construction of a 50-foot deep berth and deep access channel, combined with rail investments through CSX Transportation’s National Gateway Initiative, will enhance the Port’s ability to attract additional cargo and continue to support the economic growth of Maryland. In FY2011, The State Highway

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Administration (SHA) completed nine major bridge and highway projects, including the first segment of the Intercounty Connector (ICC)/MD 200, which opened in February. The Maryland Transit Administration (MTA) continues to advance the state’s New Starts projects, and both the Red Line and Purple Line have been approved by the US Department of Transportation for entrance into Preliminary Engineering. Using technology to manage resources effectively, the Motor Vehicle Administration (MVA) has improved alternative delivery for driver and vehicle services such as online registration, while the SHA has deployed the Maryland 511 traveler information system throughout the state.

In 2011, MDOT received national recognition from the Association of Government Accountants for both our performance management programs and annual Attainment Report. Additionally, a joint report by the Pew Center on the States and the Rockefeller Foundation identified Maryland as one of five states “leading the way” in tracking how our transportation system is advancing safety, jobs and commerce, mobility, access, environmental stewardship and infrastructure preservation. We invite you to review our annual performance results on the attainment of our shared MTP goals including information and “then and now” photo highlights of Maryland’s transportation system improvements and efficiencies commemorating this 11th edition.

# Summary

## Maryland's Transportation Agencies

ACRONYM	AGENCY
MDOT	Maryland Department of Transportation
MAA	Maryland Aviation Administration
MPA	Maryland Port Administration
MTA	Maryland Transit Administration
MDTA	Maryland Transportation Authority
MVA	Motor Vehicle Administration
SHA	State Highway Administration

Below are some of the performance results over the past year contained in this 2012 Report.

### Goal-Quality of Service

- Cost-saving strategies include reductions in non-safety related maintenance activities, resulting in a decrease in the overall maintenance condition on SHA roads.
- On time performance of MTA services in FY2011 remained on-par with FY2010 performance. The MTA anticipates improved on time performance in FY2012.
- Customer visit time at MVA branch offices decreased to below 30 minutes for the first time since tracking began.
- 92% of BWI Marshall customers rated the airport "good" or "excellent" on key services, the highest rating since customer surveys began in 2004.
- The number of *E-ZPass*® accounts increased significantly in fiscal year 2011 due to the opening of ICC/MD 200 Section A and a public outreach campaign to encourage use of *E-ZPass*®.

### Goal-Safety & Security

- The CY2010 fatality rate of 0.88 fatalities per 100 million miles travelled on Maryland roadways is 11% lower than CY2009, and is 19% lower than the CY2010 national rate of 1.09.
- Based on data from the first three quarters of 2011, the preventable accident rates on the Baltimore Metro and Light Rail are anticipated to decrease in CY2011.
- MVA increased its compliance rate with the Federal Real Identity Act (REAL ID) Program from 69% in 2010 to 85% in 2011, completing 33 of the 39 benchmarks and is making progress on new technology solutions to reach full compliance.
- In FY2011 the rate of incidents and accidents for airfield operations at BWI Marshall continues to be well below the average rate reported by Airports Council International.

### Goal-System Preservation & Performance

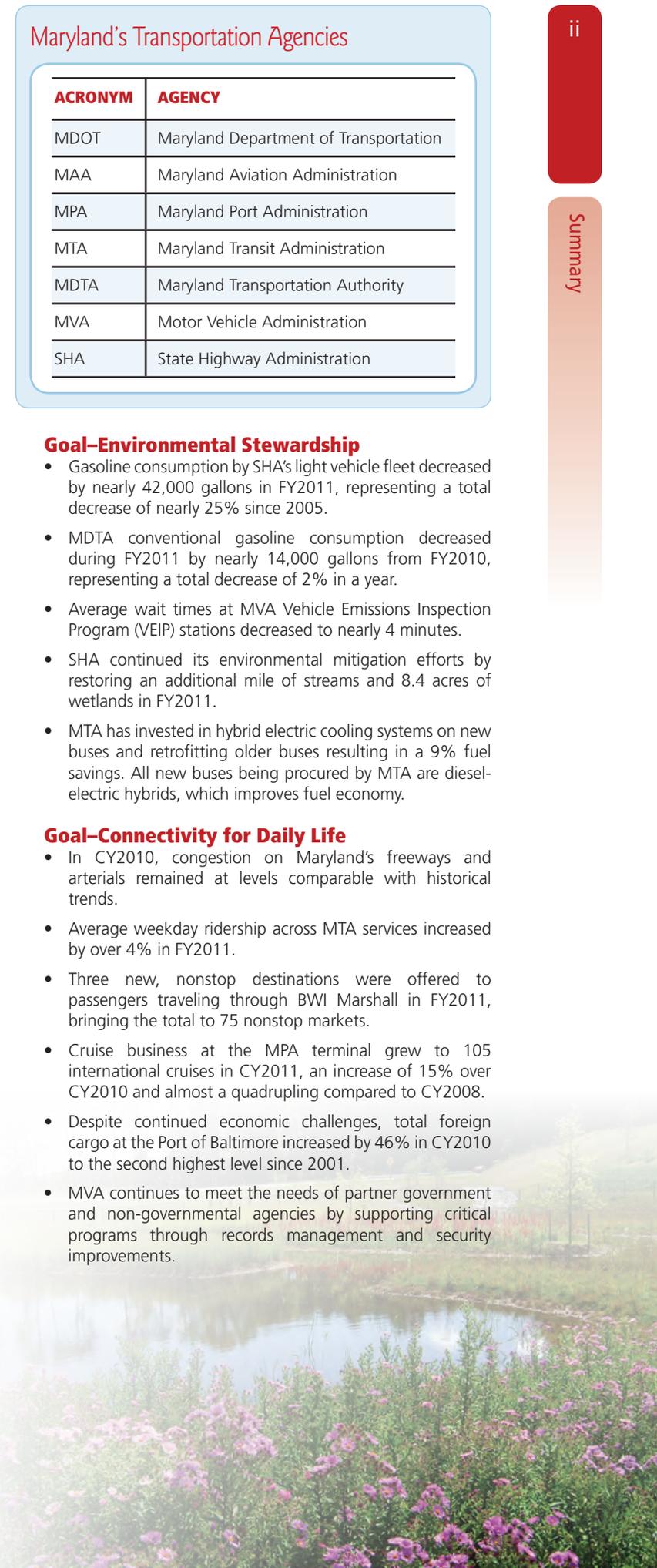
- SHA's traffic monitoring, traveler information, incident management, and traffic management program, known as the Coordinated Highways Action Response Team (CHART), responded to and cleared incidents from Maryland roadways, saving Marylanders approximately \$1.4 billion in vehicle travel costs in CY2010.
- Use of MVA's alternative service delivery methods (e.g., services available on-line and through MVA Kiosks) increased 1.9 percentage points from FY2010 levels while average cost per transaction decreased to \$13.17, its lowest level since 2005.
- The cost per enplaned passenger at BWI Marshall decreased in FY2011 to \$9.18, while the average cost for comparable nearby airports is estimated to have increased by nearly 29% to \$17.14.
- The number of SHA and MDTA bridges that are structurally deficient decreased from 111 bridges in CY2010 to 110 bridges in CY2011.
- MPA doubled its net operating profit in FY2011 to \$9.4 million due partly to decreasing MPA expenditures and revenues associated with ongoing public-private partnerships.

### Goal-Environmental Stewardship

- Gasoline consumption by SHA's light vehicle fleet decreased by nearly 42,000 gallons in FY2011, representing a total decrease of nearly 25% since 2005.
- MDTA conventional gasoline consumption decreased during FY2011 by nearly 14,000 gallons from FY2010, representing a total decrease of 2% in a year.
- Average wait times at MVA Vehicle Emissions Inspection Program (VEIP) stations decreased to nearly 4 minutes.
- SHA continued its environmental mitigation efforts by restoring an additional mile of streams and 8.4 acres of wetlands in FY2011.
- MTA has invested in hybrid electric cooling systems on new buses and retrofitting older buses resulting in a 9% fuel savings. All new buses being procured by MTA are diesel-electric hybrids, which improves fuel economy.

### Goal-Connectivity for Daily Life

- In CY2010, congestion on Maryland's freeways and arterials remained at levels comparable with historical trends.
- Average weekday ridership across MTA services increased by over 4% in FY2011.
- Three new, nonstop destinations were offered to passengers traveling through BWI Marshall in FY2011, bringing the total to 75 nonstop markets.
- Cruise business at the MPA terminal grew to 105 international cruises in CY2011, an increase of 15% over CY2010 and almost a quadrupling compared to CY2008.
- Despite continued economic challenges, total foreign cargo at the Port of Baltimore increased by 46% in CY2010 to the second highest level since 2001.
- MVA continues to meet the needs of partner government and non-governmental agencies by supporting critical programs through records management and security improvements.



# Introduction

## Transportation Network Highlights

### Surface Travel

- Transit ridership on Maryland Transit Administration (MTA) services reached 155.5 million in FY2011, including 45.8 million on Locally Operated Transit Systems (LOTS). In addition, nearly 125.7 million riders used the Washington Metropolitan Area Transit Authority (WMATA) system in Maryland.
- The Maryland Transportation Authority (MDTA) and the Maryland State Highway Administration (SHA) opened the first segment of the state's first all-electronic toll road on February 23, 2011. The initial section of the Intercounty Connector (ICC)/MD 200 connects I-370 at Shady Grove and MD 97 (Georgia Avenue)/MD 28 (Norbeck Road) in Olney. The next section from MD 97 to I-95 was opened to traffic in November 2011.
- In FY2011, the Coordinated Highways Action Response Team (CHART) incident management program responded to and cleared more than 16,000 incidents and assisted more than 21,000 stranded motorists.
- In FY2011, MDTA's Vehicle Recovery Technicians (VRT) responded to and assisted 30,588 motorists in need.
- SHA completed nine major bridge and highway projects in FY2011 totaling \$193.2 million. Notable projects include the expansion and upgrade of MD 124 (Woodfield Road) in Montgomery County, the expansion and upgrade of MD 237 (Chancellors Run Road) in St. Mary's County, upgrades to MD 355 (Rockville Pike) in Montgomery County, expansion and upgrade to MD 140 in Carroll County, and US 1 bridge replacement over Little Gunpowder Falls in Baltimore County.
- Notable projects include opening 7.2 miles and three interchanges of the ICC/MD 200 (I-270/I-370 to MD 97); I-95 Express Toll Lanes<sup>SM</sup> (ETL<sup>SM</sup>) (I-895 to Kenwood Avenue) including replacing and upgrading signs south of the Fort McHenry Tunnel and installing northbound and southbound ETLs at the Fort McHenry Tunnel toll plaza; and rehabilitating the Francis Scott Key Bridge.
- In FY2011, over 120 million toll transactions were conducted in Maryland, with E-ZPass<sup>®</sup> accounting for 76 million transactions.
- Over 11.9 million Motor Vehicle Administration (MVA) transactions were processed in FY2011, including eMVA and walk-in transactions at MVA's branch office locations.
- The relocated Baltimore City MVA branch opened in FY2011 providing excellent access to I-695, MTA Local Bus and Metro services, and supporting neighborhood revitalization.

### Air Travel

- More than 21.9 million passengers flew through Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall) in CY2010 to U.S. and international destinations.
- On average, 662 commercial flights arrive or depart from BWI Marshall each day.
- 18 publicly-owned airports and 18 privately-owned airports with public use are available to Marylanders.

### Waterborne Travel

- Port auto tonnage increased by 16% to 1.076 million tons in FY2011.
- In CY2011, 105 international cruises and approximately 440,000 passengers embarked and debarked at Maryland Port Authority's (MPA) Cruise Maryland terminal.

The 2012 Annual Attainment Report on Transportation System Performance presents to Maryland residents a transparent assessment of the performance of their transportation system. The Attainment Report identifies the performance of the transportation system, describes the successes of the last year, and explains the strategies to address areas in need of improvement. Performance measurement is a critical tool in the state's ongoing efforts to inform the public and decision makers, improve the efficiency of state programs, and to promote accountability.

Published each year since 2002 by the Maryland Department of Transportation (MDOT), the Attainment Report presents performance results grouped for five fundamental goals for the state's multimodal transportation system, which includes highways, transit, bicycle and pedestrian travel, rail, airports, seaports, and motor vehicle services:

- **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 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 that encourage development in areas best able to support growth; and
- **Connectivity for Daily Life:** Support continued economic growth in the state through strategic investments in a balanced, multimodal transportation system.



# THEN

*From 2001-2006, the MAA worked to dramatically expand and improve BWI Marshall Airport for travelers*

## Integrating Multimodal Transportation

MDOT brings together all modes of transportation to operate as a single Department, ensuring a high level of cooperation and coordination between modes. MDOT oversees five transportation agencies, each of which is responsible for managing critical components of Maryland's transportation system:

- **Maryland Aviation Administration (MAA)** operates BWI Marshall and Martin State Airport, a general aviation/reliever airport northeast of Baltimore;
- **Maryland Port Administration (MPA)** promotes the Port of Baltimore as a leading hub for cargo and for cruise activity;
- **Maryland Transit Administration (MTA)** provides local and regional public transit services on bus and rail;
- **Motor Vehicle Administration (MVA)** provides a host of services for vehicles and drivers, including registration and licensing; and
- **State Highway Administration (SHA)** manages the state's highway system, which includes 5,100 centerline miles of roads and about 2,600 bridges.

In addition, the MDOT Secretary serves as Chairman of the:

- **Maryland Transportation Authority (MDTA)**, which owns, operates, and maintains the state's eight toll facilities.

## Guiding Maryland's Transportation Network

To inform Marylanders and to report to Maryland's governing bodies on the state of transportation in Maryland, MDOT publishes the State Report on Transportation (SRT) annually. The SRT includes the Maryland Transportation Plan (MTP), the Consolidated Transportation Program (CTP), and the Attainment Report. The MTP guides MDOT's vision for transportation over a 20-year horizon and establishes long-term goals for multimodal transportation in rural and urban areas in Maryland. Every five years MDOT updates the MTP, gathering broad input of citizens, sister State agencies, and stakeholder groups through a public outreach program to ensure that MDOT's long-range vision, goals, and objectives are responsive to a broad range of interests throughout the state.

The MTP provides a framework for developing the CTP, which is updated annually to identify all transportation investments over the next six years. This year's CTP (FY2012–FY2017) focuses investments as part of the broader sustainability agenda of the Governor's *Smart, Green & Growing* initiative with significant investments in bridges, pavements, transit vehicles, transportation facilities, system operations, and programs to support Transit-Oriented Development (TOD). These investments address safety and system preservation needs, minimize our environmental impact, enhance accessibility, and encourage healthier lifestyles while providing more effective, longer-lasting solutions.

## Ensuring Strategic Transportation Investments

MDOT applies a strategic decision making process to ensure the public dollars are invested in an efficient and cost effective manner in the CTP. To support the strategic process, in 2010, Maryland State Law, Chapter 725, went into effect. The law aims to increase transparency and accountability by requiring more information about MDOT's process for evaluating projects and by clarifying the role of statewide transportation goals in the CTP project selection process. As part of implementing a more transparent approach, over the last year, MDOT conducted a thorough evaluation of each major capital project based on its purpose, need, and relationship to the MTP goals. This evaluation process included capturing how state transportation projects that are requested in local government priority letters are consistent with local government land use plans.

The Blue Ribbon Commission on Maryland Transportation Funding initiated by the legislature (Chapters 525 and 526) to address funding challenges, submitted a final report in November, 2011 with both financial and programmatic recommendations. The Maryland General Assembly is expected to discuss the recommendations during the 2012 session.

## Promoting Sustainable Transportation

MDOT is committed to integrating environmental protection, compliance, and sustainability into the policies, planning, and day-to-day operations of all of our modal agencies. In addition to agency-specific environmental initiatives, we coordinate with State, local, and Federal partners to reduce the impacts of our activities on human health, the natural environment, and the global climate. A selection of this year's new and ongoing initiatives includes:

- Implementation of *Smart, Green & Growing* initiatives, designed to create a more sustainable future for Maryland, including adopting Smart Growth policies, improving transit, and supporting community revitalization.
- Management of stormwater runoff from multimodal transportation infrastructure to promote healthier, cleaner habitats and reduce pollution in the Chesapeake Bay.
- Promotion of lower emission travel modes, technologies, and practices, including travel demand management, walking, bicycling, lower-emissions transit and fleet vehicles, and the expansion of fueling infrastructure for less-carbon intensive fuels—including electricity.
- Identification and tracking of transportation infrastructure vulnerable to climate change in accordance with Maryland's Climate Action Plan.



NOW

*The ambitious expansion program implemented \$1.4 billion worth of improvements, including the expanded passenger terminal facility and terminal roadway shown here, new public parking, and a new consolidated rental car facility. In 2012, the MAA will continue to plan for the next major airside and landside improvements to BWI Marshall Airport*

## Investing in Transportation

The TTF supports the operating and capital needs of MDOT and its Modal Administrations. Funds are generated through taxes, fees, bond proceeds, and federal funds. The TTF is an integrated fund that promotes planning for multimodal solutions because it allows for flexibility in spending across modes, including a portion dedicated to help fund the WMATA, which provides Metrobus and Metrorail transit service in the metropolitan Washington region. The MDTA is not included in the TTF because it self-finances through tolls, concessions, and other sources.

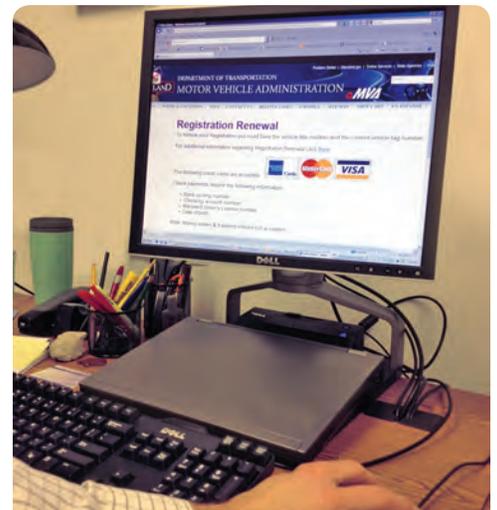
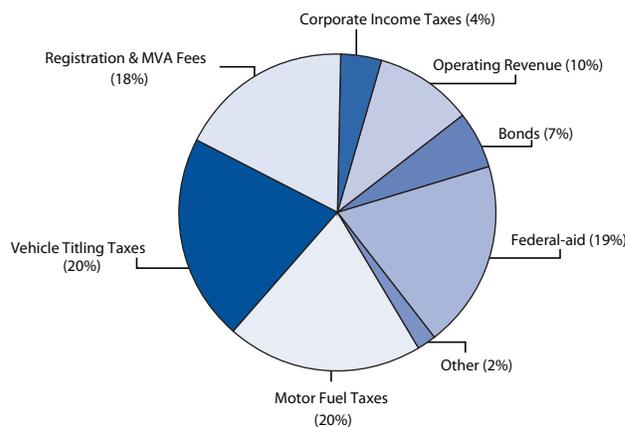
Maryland continues to face TTF shortages compared to recent revenue projections. In FY2011, TTF revenue sources tied directly to economic conditions in Maryland (motor fuel taxes, vehicle titling taxes, vehicle registration fees, and corporate income taxes) showed an increase compared to FY2010; however, they are still lower than revenues in FY2008. Together, these variable sources are expected to fund 63% of the TTF.

The FY2012-FY2017 CTP forecasts that federal funding will represent 19% of Maryland TTF revenue sources over the next six years. MDOT continues to track discussions on a new surface transportation bill, with the latest extension of funding under the current bill (SAFETEA-LU) recently granted through March 31, 2012.

MDOT continues to focus on achieving its goals in a cost-effective manner, and carefully managing available funding to secure the best outcomes for moving people and goods safely and efficiently. For example, in the current FY2012-FY2017 CTP, \$829.0 million is programmed in FY2012 towards system preservation to fund maintenance of current assets, which protects Maryland transportation agencies' investments. To avoid excessive borrowing, MDOT also tracks the "percentage of budgeted dollars expended" as a way to compare the budget with borrowing levels. In FY2011, MDOT expended 93% of its budgeted dollars, exceeding its goal of 90%.

MDOT's capital and operating budget appropriations are shown in the pie charts on page 4, as are the CTP funding commitments over the last decade. As MDTA is independently funded with separate sources, its capital and operating budget are shown separately.

Transportation Trust Fund Sources  
FY2012-FY2017 CTP



# NOW

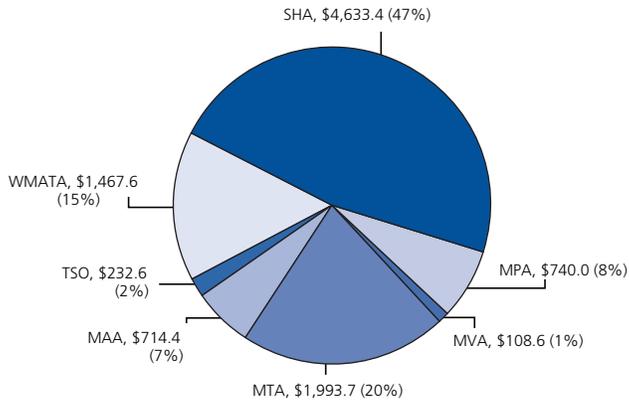
MVA now offers many alternative service delivery methods such as the Internet, kiosk, mail-in, and customer call center - and in 2011, MVA began requiring alternative methods be used by most Marylanders when renewing a vehicle's registration. Alternative services not only reduce costs, but also reduce VMT by limiting vehicle trips to MVA offices



# THEN

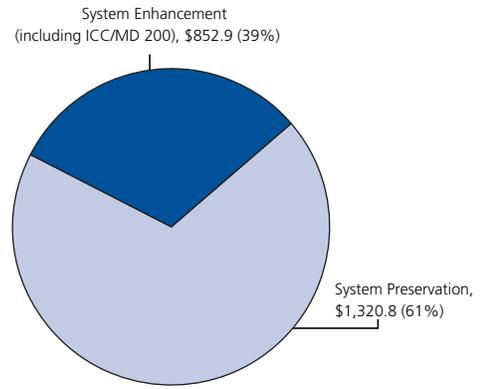
Historically, many licensing and registration services required in-person visits to the MVA

### MDOT Capital Budget (Millions) FY2012-FY2017 CTP



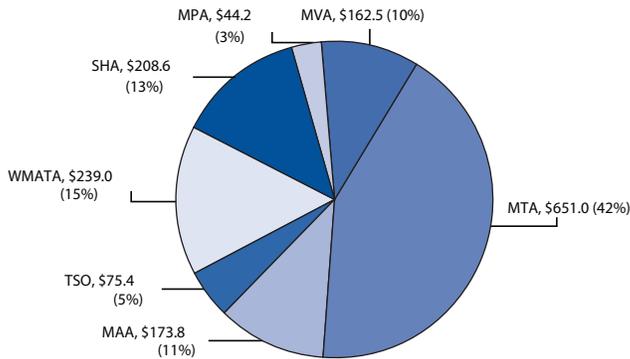
Total Capital Budget: \$9.89 Billion

### MDTA Capital Budget (Millions) FY2012-FY2017 CTP



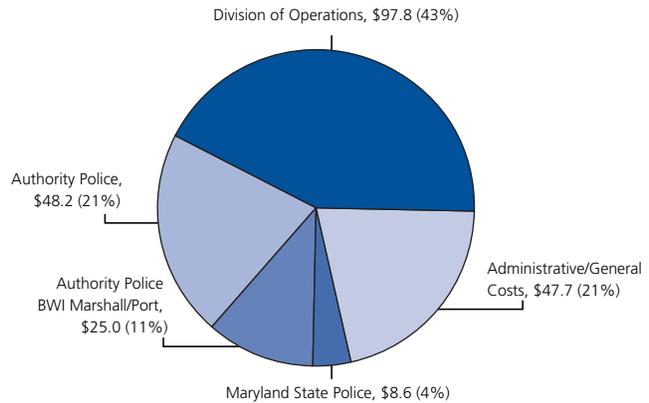
Total Capital Budget: \$2.17 Billion

### MDOT Operating Budget (Millions) FY2012



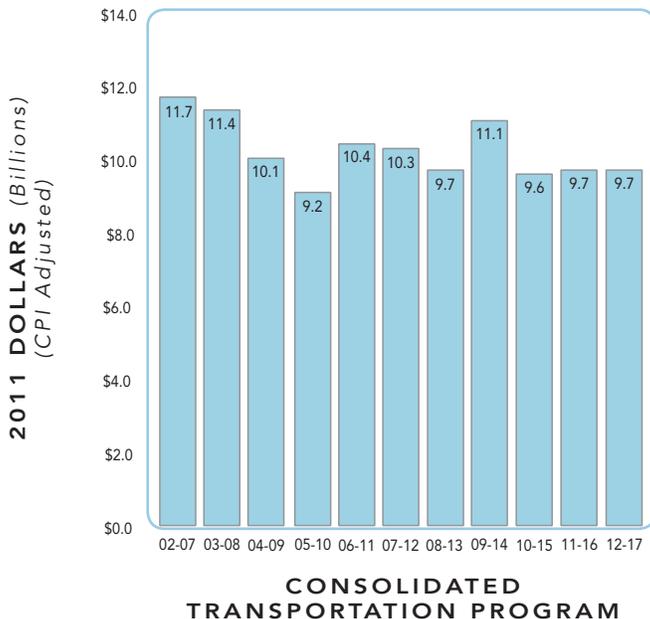
Total Operating Budget: \$1.55 Billion

### MDTA Operating Budget (Millions) FY2012



Total Operating Budget: \$227.3 Million

### MDOT Total Capital Program Levels (Billions)



### Generating Jobs for Maryland

The ICC/MD 200, the approximately 18 mile long toll road linking existing and future developments in Montgomery and Prince George's Counties, has been under construction since 2007. It is a \$2.5 billion project and represents \$1.5 billion in highway construction investments. Over the course of the project, ICC/MD 200 construction workers have logged nearly 7.3 million labor hours and in CY2011 alone the ICC/MD 200 employed more than 3,600 people, with nearly 200 contractors and sub-contractors on the job. The first 7-mile segment (contract A) opened to traffic in February 2011. The next two phases of the project (contracts B and C) opened in November 2011. The last phase (contracts D/E modified) will begin construction soon, with completion expected in early CY2014.

As part of the 2009 American Recovery and Reinvestment Act (ARRA), states were required to report on the use and impact of the economic stimulus funds, including job creation. Using StateStat, a website created for Maryland's performance measurement and management program, every category of ARRA spending is tracked and monitored for effectiveness. Since the ARRA program began, Maryland has used the funding to make major investments in maintaining and upgrading the transportation system while creating 9,100 jobs—1,162 of those in the transportation sector.

## Surface Travel in Maryland

Vehicle Miles Traveled (VMT) in Maryland grew at a steady rate as the state's economy and population boomed starting in the 1940s. While over the last 60-70 years there have been periods of slower VMT growth, economic conditions since 2008 have partly contributed to recent decreases or no change in VMT.

For over two decades, Maryland's VMT has outpaced population growth and MDOT's ability to expand the roadway network. MDOT implements multimodal infrastructure strategies to better manage transportation system supply and administers programs and traveler incentives to help manage demand for transportation services. For example, to improve system operations, SHA retimed 330 signals in FY2011 resulting in a delay reduction of 630,000 hours. These programs also benefit the efficient movement of commercial vehicles in Maryland, a critical element of the state's economy.

Improving highway safety is a primary goal for MDOT. Maryland conducts high visibility traffic safety outreach and education campaigns to address critical traffic safety issues, including aggressive driving, impaired driving, and occupant protection. Maryland's observed seat belt use rate reached 94.7%, the highest of any state in the eastern United States and sixth highest in the nation. Through the implementation of coordinated traffic safety programs by multiple State agencies in partnership with local agencies and organizations across Maryland, the potential exists for traffic fatalities to continue to decline.

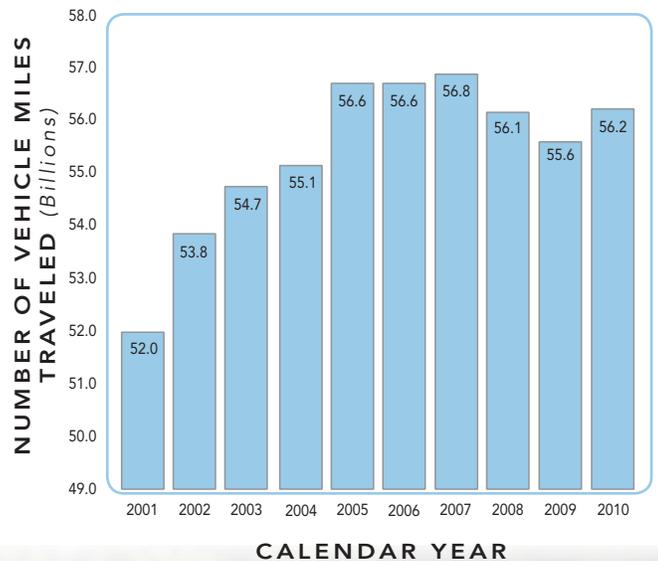
MDOT promotes a balanced surface transportation system to help expand mobility for all Marylanders. MTA directly operates or supports multiple transit modes serving the full range of travel needs in Maryland. MTA supports 25 Locally Operated Transit Systems (LOTS), providing approximately \$93.5 million in federal and state grants in FY2011. MDOT also supports WMATA, which provides transit service for Marylanders living and working in the Washington region.

MDOT includes accommodation for walking and bicycling in all of its projects, wherever possible, and has launched several programs directing funding to walking and biking. While non-motorized travel represents a small share of trips, it is an increasingly important element of the transportation network, providing a low-cost, zero-environmental impact, and healthy alternative for local trips. The FY2012-FY2017 CTP illustrates Maryland's ongoing commitment to improving bicycle and pedestrian mobility, with nearly \$140.6 million programmed for bicycle and pedestrian projects.

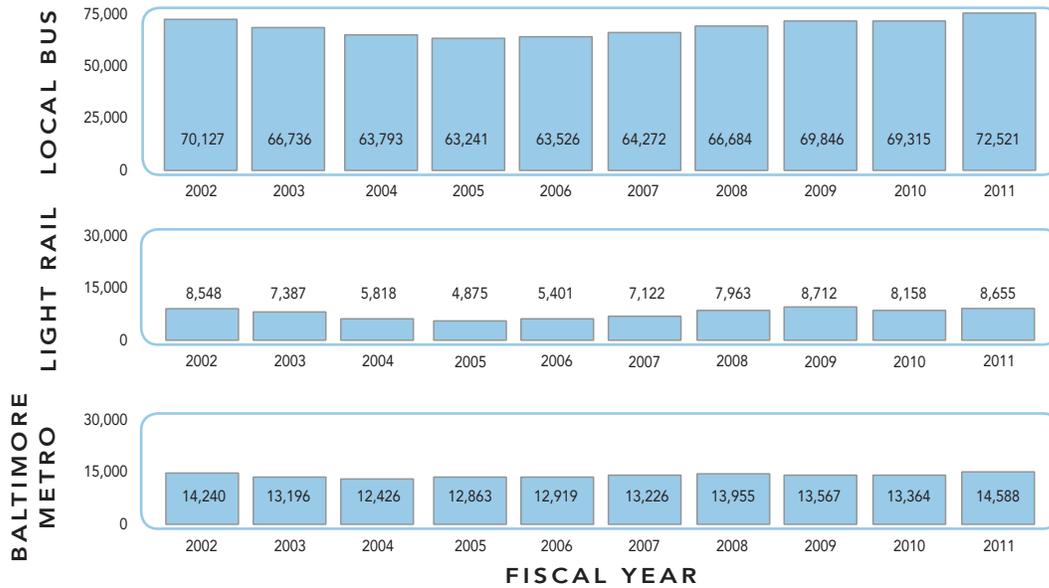
MDOT also cooperates with the Metropolitan Washington Council of Governments to manage a diverse set of Travel Demand Management (TDM) programs that help to reduce driving alone by providing incentives to commuters who ride public transportation, carpool, vanpool, bike, walk, or telecommute. The Commuter Choice Maryland program, which encourages employers to offer discounted monthly passes for transit, includes a Guaranteed Ride Home program, and provides incentives for ridesharing.



## Annual Number of Vehicle Miles Driven



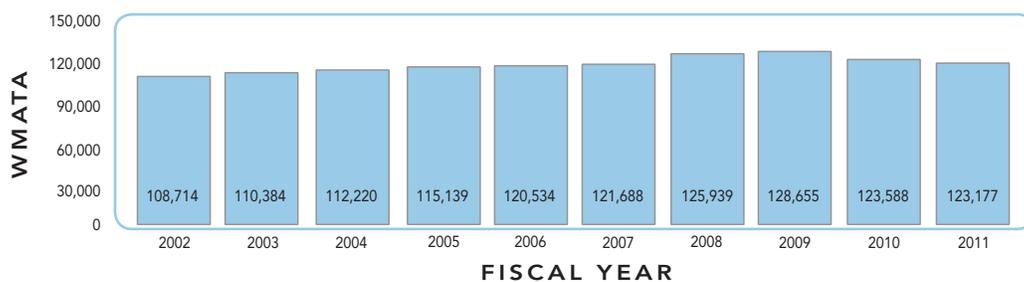
## Transit Ridership—MTA Direct-Operated Services (Thousands)



## Transit Ridership—Contracted Services and LOTS (Thousands)



## WMATA—Maryland-Only Transit Ridership\*\* (Rail, Bus, MetroAccess) (Thousands)



\* Data is estimated.

\*\* Maryland-only WMATA Ridership is an estimate: Maryland Metrorail ridership is calculated based on the 2007 rail passenger survey; Maryland Metrobus ridership is derived from ridership counts by line as of September, 2011; and Maryland MetroAccess ridership is from fiscal year 2011 actual ridership counts.

## Accommodating Growing Passenger Demand

In 2010, drivers in Maryland traveled 56.2 billion vehicle miles—about 1% less than the all time high of nearly 57 billion VMT in 2007. Growth in total travel demand, driven by population growth and economic growth, is expected over the next 20 years and beyond. Maryland's population in 2010 was 5,773,552 based on the 2010 U.S. Census. By 2030, Maryland's population is projected to increase by nearly 900,000 and the economy is expected to produce an additional 610,000 jobs.

More homes will be built to house these residents, and businesses will expand or new businesses will open to provide goods and services to them. While the anticipated growth will provide many benefits to Marylanders, the growth will also contribute to increased demand for transportation services. To accommodate future demand and manage congestion, Maryland's transportation agencies are committed to maintaining the infrastructure already in place and supplementing it with the next generation of transportation infrastructure and programs through projects such as the ICC/MD 200, the Purple Line Light Rail line and the Corridor Cities Transitway in the Washington region; the Red Line Transitway in the Baltimore region; expansion of services, amenities, and operations on the Maryland Area Rail Commuter (MARC) system; and expansion of the scope and benefits of Commuter Choice Maryland.

Maryland is expected to see an increase of 45,000 to 60,000 direct, indirect, and induced jobs over the next several years as a result of the implementation of Base Realignment and Closure (BRAC) and other Department of Defense location decisions. MDOT is coordinating with governments at all levels to address the transportation impacts associated with BRAC. As of December, 2010, MDOT has invested \$208 million for transportation projects related to BRAC. MDOT is also working closely with local governments, stakeholder groups, and other partners to advance priority projects and to identify and program additional funds.

Growing passenger and freight demand is expected to increase the number of licensed drivers and registered vehicles in Maryland

by 23% and 40% respectively by 2026. Many of these will be new users who will interact with the MVA to obtain their licenses and permits and to register their vehicles. To manage resources effectively to accommodate this demand, the MVA now requires alternative delivery services, such as online registration.

### Induced Travel

Induced travel is generally defined as an increase in daily trips or travel distance resulting from improved transportation conditions. Induced travel is commonly associated with capacity increases (roadway and/or transit expansion), but it can be caused by any improvements that reduce travel times and/or costs (e.g., signal coordination, transit service frequency) or benefit transportation conditions (e.g., safety, comfort, reliability). Induced travel can occur for freight movement if cheaper transportation leads to more goods being shipped, or from changes in logistics patterns that move the same goods longer distances.

The magnitude of induced travel can be greater if land use policies allow new "sprawl" development in expanding highway corridors. Land use policies aimed at focusing growth in existing developed areas, or in targeted new growth centers (such as TOD), can help manage induced travel and preserve new capacity by encouraging development in areas where destinations are closer together and alternative travel options are available.

Induced travel is not necessarily bad. It may indicate economic growth or that people are taking advantage of new travel options. However, induced travel does come with potential negative side effects such as air pollution, energy consumption, and noise. It also means that the expected benefits of capacity improvements, as measured by congestion relief and travel time savings, may not be sustainable or fully materialize.

## MVA Transactions (*Thousands*)

	2005	2006	2007	2008	2009	2010	2011
Registered Vehicles	4,604	4,690	4,752	4,774	4,736	4,816	4,809
Driver's Licenses Issued	3,846	3,895	3,937	3,995	4,049	4,082	4,083
Motorcycle Licenses	221	230	237	244	252	257	217
Commercial Driver's Licenses	153	160	164	167	168	170	173
MVA Transactions Per Year	11,991	12,562	12,542	12,388	12,263	11,011	11,917

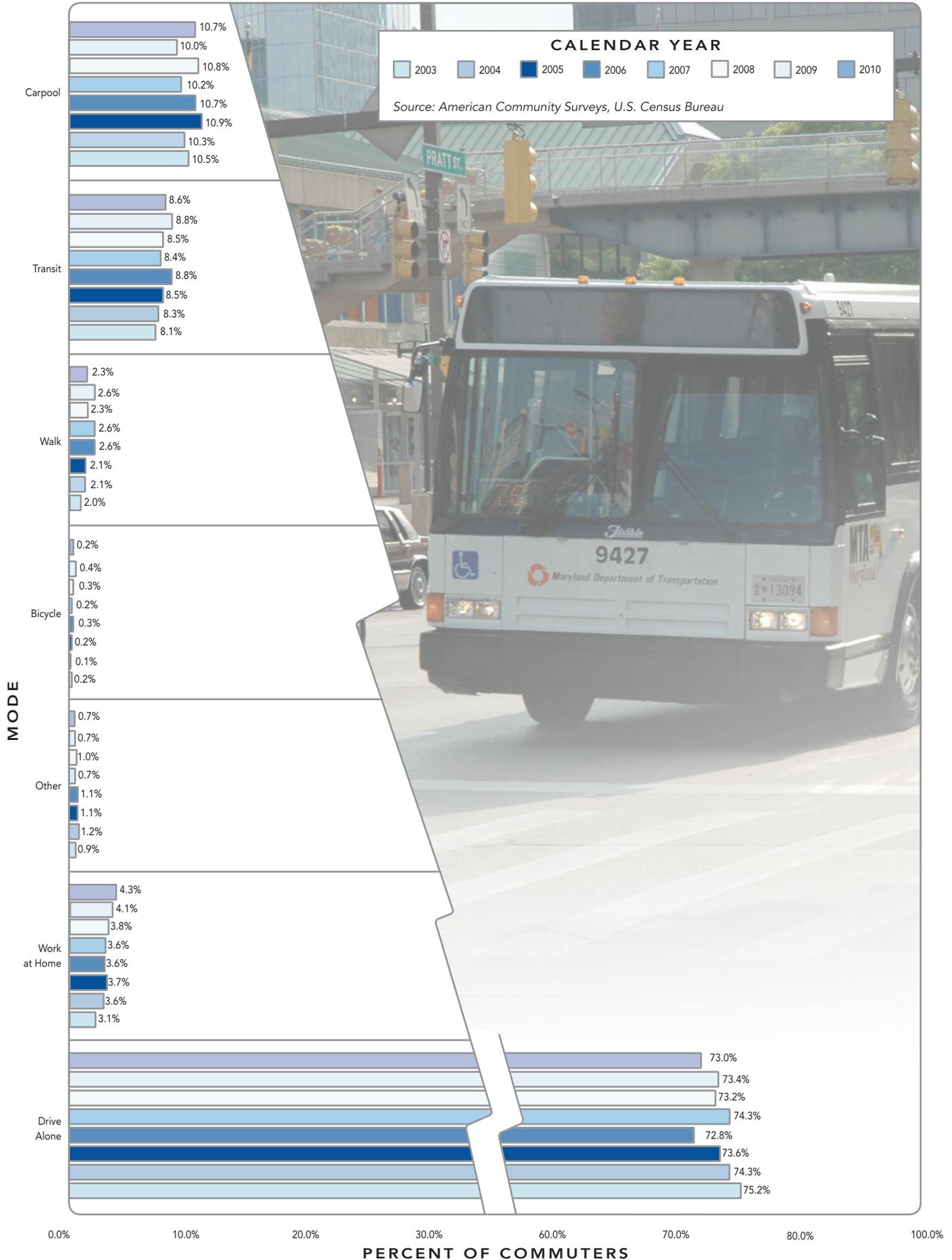
## Mode Split for Maryland Commuters

Maryland residents have the second longest average commute to work in the nation. According to the 2010 American Community Survey, Maryland residents average commute time to work is 31.8 minutes, compared to the national average of 25.3 minutes. In 2010, 73.0% of these commuters drove to work alone, compared to the national average of 76.6%.

MDOT places a strong emphasis on providing competitive alternatives to single occupancy vehicle (SOV) commuting for its customers. This commitment is delivered by MDOT through priority investments in public transportation, TOD programs and projects supporting bike and pedestrian travel, and TDM programs.

MDOT is supporting priority investment in the Red Line in Baltimore, Purple Line in Montgomery and Prince George's County, and implementation of the MARC Growth and Investment Plan. MDOT has also established successful partnerships with other State and local agencies to move redevelopment and transportation access projects forward at TOD locations. MDOT includes accommodations for walking and biking in most roadway projects and, this year, implemented a Bikeways Program to help implement the statewide Trails Plan and Bicycle and Pedestrian Access Plan.

# Mode Split for Maryland Commuters



## Performance Measures

MTP GOAL	2012 AR FREIGHT RELATED MEASURES	PAGE
Quality of Service	(MPA)—Average truck turn-around time at Seagirt Marine Terminal	15
	(SHA)—Percentage of the Maryland SHA network in overall preferred maintenance condition	12
Safety & Security	(SHA & MDTA)—Annual number of traffic fatalities and personal injuries on all roads in Maryland	18
System Preservation & Performance	(SHA & MDTA)—Number of bridges and percent that are structurally deficient	24
	(SHA & MDTA)—Percent of roadway miles with acceptable ride quality	24
Connectivity for Daily Life	(MPA)—Port of Baltimore foreign cargo and MPA general cargo tonnage	45
	(SHA & MDTA)—Percent of freeway lane-miles and arterial lane-miles with average annual volumes at or above congested levels	40

## Originating and Terminating Freight in Maryland\*

METHOD FOR MOVING FREIGHT	TOTAL VALUE (Millions)	TOTAL TONNAGE (Thousands)
Air**	\$4,492	112
Other***	\$52,058	9,501
Rail	\$6,594	22,569
Truck	\$294,198	236,809
Water****	\$41,500*****	32,840 foreign; 9,900 domestic
All Freight	\$398,842	311,371

\* Source: U.S. Department of Transportation Freight Analysis Framework (FAF3) Version 3. Other, Rail, and Truck value and tonnage data is estimated based on FAF3 data. The data is adjusted yearly to account for previous year actual data and a 2% annual growth rate consistent with the Federal Highway Administration's Freight Summary 2008. The 2% growth rate reflects a conservative estimate of domestic and international freight growth given current economic conditions.

\*\* Source: BWI Marshall report to Airports Council International (2010).

\*\*\* Freight consists largely of postal and courier shipments weighing less than 100 pounds and other intermodal combinations.

\*\*\*\* Source: MPA and U.S. Army Corps of Engineers (2010).

\*\*\*\*\* Value of international cargo only.

MDOT's Office of Freight and Multimodalism (OFM), focuses on policy and project development to promote freight and multimodal transportation within, through, and out of Maryland. OFM emphasizes the continued development of a balanced, multimodal transportation network through a coordinated and collaborative effort with all MDOT modal administrations, Metropolitan Planning Organizations, local governments, and stakeholders. Specifically for freight, MDOT is a partner in freight services as the owner of the public terminals in the Port of Baltimore and several shortline railroads, through cooperation with Class I railroads, in accommodation air cargo, and through safety, access, and congestion mitigation efforts on Maryland highways and railroads.

MDOT's efforts to improve the freight system, especially through access projects that meet both economic and environmental improvement goals, are imperative as population growth and expected consumer demand will lead to a projected doubling in freight activity by 2030. MDOT's efforts are organized through the implementation of the statewide Freight Plan, which was developed by MDOT, MPOs, the modal administrations, and external stakeholders. It serves as the blueprint for the policies and necessary investments to improve freight flow in Maryland.

MDOT relies on its partnerships as the key to addressing freight concerns. For example, OFM continually works with the railroads on aging assets, landside capacity issues, and chokepoints. The Port of Baltimore, as the key freight distribution point in the state, improves operational efficiencies through partnerships with the truck drayage companies that move the goods from ship to inland. As trucks utilize state roadways, MDOT, SHA, and MDTA work to identify parking and other safety and access improvements. Through continued coordination, this freight partnership is making great strides to elevate freight needs and solve for goods movement challenges.

## Freight Key Initiatives

- MDOT is actively working with CSX to plan and develop a new freight rail-to-truck transfer facility (the Baltimore-Washington Rail Intermodal Facility) in central Maryland. MDOT is also a partner in CSX's National Gateway initiative, a partnership between the Federal government, six states, and the District of Columbia, and the railroad to create a double-stack rail network. These projects will improve freight rail connectivity and capacity through the Mid-Atlantic region.
- Maryland is a national leader in implementing truck safety programs and enforcement initiatives that have produced improved truck safety. Maryland's commercial vehicle safety programs—one of the most aggressive in the nation—recently received recognition from the Commercial Vehicle Safety Alliance and American Transportation Research Institute for fatal crash reduction activities. Maryland also consistently ranks in the top 10 states for commercial vehicle inspections. State officials continually reach out to the trucking and traveling community at large to educate about truck safety.
- MDTA Police Commercial Vehicle Safety Unit (CVSU) partners with Federal, State, and local agencies to perform joint inspection and enforcement operations at all MDTA facilities. The unit addresses concerns regarding commercial vehicles using local roadways to avoid inspection and weight enforcement. This enforcement helps to safeguard the general public, as well as prevent damage to roadways from excessive vehicle weights or unsecured cargo.
- Infrastructure preservation and truck safety are being served through technology. "Virtual weigh stations" are real-time automated tools capable of conducting measurements and certifications of commercial vehicles that are traditionally conducted manually at fixed weight stations. Virtual weigh stations are being installed at key locations statewide.
- OFM is helping freight entities by leveraging federal grant opportunities. OFM successfully received High Speed Intercity Passenger Rail Grants totaling \$92 Million that will improve capacity and safety on the Amtrak Northeast Corridor on which Norfolk Southern freight travels. Additionally, OFM was instrumental in helping obtain a federal grant for short line rail improvements in Baltimore that will improve operations and local quality of life.
- The State of Maryland has developed and implemented a web-enabled oversize/overweight hauling permit system that allows trucking companies to order, pay for, and receive special hauling permits in minutes rather than hours.

## Air Travel in Maryland

BWI Marshall, a major economic engine for Maryland, is the 23rd largest airport in the United States, based on total enplanements in 2010. BWI Marshall has the third most daily departures in the Southwest Airlines network and is home to a number of other domestic and international airlines. The MAA, the owner and operator of the BWI Marshall, works diligently to create and maintain BWI Marshall's "easy-come, easy-go" reputation. In FY2011 BWI Marshall received a 92% customer satisfaction rating from its customers. BWI Marshall has also weathered current economic conditions far better than most airports, with an increase in passenger traffic in 2009, and new records for passenger traffic in 2010. In FY2011, the number of nonstop destinations from BWI Marshall also grew, as its two primary airlines, Southwest and AirTran, continue to initiate new nonstop service to domestic and international markets. The completed merger of these two airlines in CY2012 will integrate both airlines' service at BWI Marshall and open up new destinations to consumers. In addition, MAA is currently leading a number of airfield, terminal, and landside access improvement projects and long-range planning efforts at BWI Marshall that will enhance domestic and international passenger and cargo opportunities through intermodal connections and state-of-the-art technology.

The MAA is responsible for developing and regulating aviation activities at the state's 36 public-use airports, and also owns and operates Martin State Airport, a general aviation reliever facility and a support facility for the Maryland Air National Guard and Maryland State Police. Excluding BWI Marshall and Martin State Airport, Maryland's general aviation airports received approximately \$31.9 million in state funding assistance between 2001 and 2011 (excluding federal funds and local airport funds). MAA's leadership of aviation in Maryland fosters, develops, and regulates aviation within the state while promoting safe and efficient operations, economic vitality, and environmental stewardship.

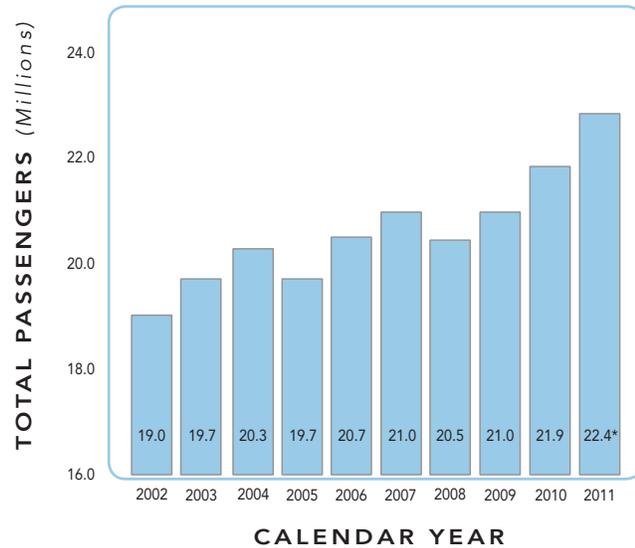
## Waterborne Travel in Maryland

The Port of Baltimore is a critical asset supporting Maryland's and the Mid-Atlantic's economy. Activities at the Port of Baltimore generate about 16,700 direct jobs, while about 120,000 jobs in Maryland are linked to Port activities. The Port is responsible for \$3.7 billion in personal wages and salary, and nearly \$400 million in state and local taxes. For over 300 years, the Port has served as an important gateway for East Coast and Midwest commerce. MPA management of the Port's public facilities focus on maintaining high productivity, enhancing Port security and safety, expanding and revitalizing infrastructure, and directing environmental stewardship programs. The Port of Baltimore has favorable logistics for moving goods, with rail connections and proximity to major Interstate highways that facilitate direct transport to national marketplaces.

The Port continues to demonstrate tremendous progress despite a challenging economy. Buoyed by a strong year in 2010, the Port of Baltimore now ranks 11<sup>th</sup> nationally (up from 12<sup>th</sup>) in dollar value of foreign cargo and 13<sup>th</sup> (up from 15<sup>th</sup>) in the amount of foreign cargo tonnage handled, according to recent statistics released by the U.S. Census Bureau. In CY2010, the total dollar value of cargo coming through the Port of Baltimore was \$41.5 billion, a 37% jump from 2009, while the amount of foreign commerce through the Port's public and private terminals was 32.8 million tons, a 47% increase from the previous year. Among individual commodities, the Port jumped to number one for trucks (ranked second in 2009), imported salt (sixth in 2009), and imported iron ore (second in 2009). Baltimore remained the number one port in the nation for handling roll on/roll off cargo (farm and construction machinery), imported forest products, imported gypsum, and imported sugar. Baltimore is second in the nation in handling international automobiles.

The Port's direct access to the Midwest provides a competitive advantage over other east coast ports. In 2010, construction began on a 50-foot deep berth at the Port of Baltimore's Seagirt Marine Terminal. The project will create 5,700 new jobs, provide the state

## Total Annual Commercial Passengers at BWI Marshall Airport



\* 2011 Data is estimated

with \$140 million for road, tunnel and bridge improvements, and generate about \$15.7 million annually in taxes. When complete, the Port will be one of only two U.S. East Coast ports with both a 50-foot deep access channel and a 50-foot deep container berth. These investments prepare the port to handle mega-containerships expected to operate between Asia and the East Coast once the Panama Canal is widened and deepened in 2014. The ongoing marine terminal investments at the Port combined with rail investments through CSX Transportation's National Gateway Initiative will enhance the Port of Baltimore's ability to attract additional cargo and continue to support the economic growth of Maryland.

Cruise ship activity has also provided a positive economic impact to the state. In CY2011, 105 international cruises used the Port serving a combined 440,000 embarkations and debarkations. Two cruise lines operated year-round cruising schedules from Baltimore in 2011. Baltimore ranks fifth on the East Coast and 12th nationally for cruise passengers.



# Quality of Service

## Objectives

- 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

## Performance Measures

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	Percent of BWI Marshall customers rating the airport "good" or "excellent" on key services	15
MPA	Average truck turn-around time at Seagirt Marine Terminal	15
MTA	Percent of service provided on time	13
MTA	Customer satisfaction rating	14
MDTA	Overall customer satisfaction of <i>E-ZPass</i> ® customers	16
MDTA	Percent of toll transactions collected electronically	16
MVA	Branch office customer visit time versus customer satisfaction rating	14
SHA	Maryland driver satisfaction rating	12
SHA	Percentage of the Maryland SHA network in overall preferred maintenance condition	12

## Key Initiatives

- MDOT:** Continue to take a proactive planning approach to ensure the mobility needs of Maryland residents are met despite the increase in demand on the transportation system as a result of Base Realignment and Closure (BRAC) and constrained funding for transportation.
- MAA:** Supplement current retail, food, and beverage concessions in the terminal with recognized local and national concepts and continue to improve overall airport customer service quality.
- MPA:** Implement technology and infrastructure improvements at entry points and in the terminal to improve truck turn times and overall terminal velocity.
- MTA:** Continue strategic schedule adjustments to match rider demand to better serve transit riders and attract riders to transit.
- MDTA:** Continue expanding *E-ZPass*® "On The Go" retail outlets to allow more convenient purchase of *E-ZPass*® transponders.
- MVA:** Continue to implement policies, technologies, and strategies contained in the MVA Alternative Service Delivery Plan to reduce the average branch office and Vehicle Emissions Inspection Program (VEIP) customer visit time.
- SHA:** Identify roadways impacted by Hurricane Irene and subsequent flooding; replace and repair to provide safe and effective transportation facilities.

The efficient and reliable operation of Maryland's transportation system facilitates the movement of people and goods between origins and destinations, providing Marylanders the quality of service they expect. To accomplish a high-quality experience for all travelers, Maryland's transportation agencies leverage limited resources and combine these with innovative technologies to maintain and enhance the functionality of the transportation system. Maryland's transportation agencies strive to provide reliable service and information, and ensure effective communication among transportation agencies and emergency management and response personnel in the event of emergencies. For example, "Know Before You Go" is the theme of the new Maryland 511 traveler information system, which became available throughout the state starting in August 2011. The system provides travel information via the web or phone on state-maintained roadways, including travel time, incident or work zone lane closures, weather reports, and connections to transit, airport, and tourism information. This information helps Marylanders plan their travel to major events, for long distance trips, and for daily commutes.

Maintaining a high quality of service for all users of Maryland's transportation system requires assessment and review of past and existing conditions. To sustain high-quality service, and meet the needs of a growing and increasingly diverse population, Maryland's transportation agencies actively engage with partner agencies and stakeholders on implementing new quality of service initiatives. Examples include increasing the number of MVA services available online and expanding use of automatic vehicle locator technology to provide MTA's customers with up-to-date bus arrival information. These initiatives improve operations and enhance the quality of life in Maryland.

ICC/MD 200 arch bridge over Rock Creek under construction, circa 2009

THEN



## SHA: Maryland Driver Satisfaction Rating

Customer Satisfaction Surveys help determine if SHA services are better than average in the eyes of its customers. SHA strives to achieve a "B" grade, which is equivalent to four out of five rating.

CALENDAR YEAR*	2006	2008	2010
Rating	3.93	3.90	3.94

TARGET: 4 out of 5

\* Survey administered biennially. The next survey will be administered in 2012.

### Why Did Performance Change?

- Reviewed customer needs and preferences and prioritized roadway maintenance and bridge condition activities accordingly
- Disseminated real-time traffic information through variable message signs on roadways and via the SHA website
- Deployed the statewide 511 Traveler Information System in August 2011
- Improved timeliness, consistency, and transparency of project reviews, and improved customer access to the status of highway access permit requests including tracking of permit applications on SHA's website

### What Are Future Performance Strategies?

- Respond to every customer service request by the end of the next business day, and if the issue can be resolved, do so by the date promised
- Increase employee skills, knowledge, and abilities in dealing with a variety of customers and customer-interaction situations
- Continue active partnering relationships with key stakeholders and partners as a forum to develop and implement projects, programs, and policies that are of mutual interest
- Manage customers' expectations regarding the agency's work priorities

## SHA: Percentage of the Maryland SHA Network in Overall Preferred Maintenance Condition

The overall condition of the network reflects how well asset management strategies, improved operations, and technology have sustained the quality and safety of existing highways.



### Why Did Performance Change?

- Total maintenance expenditures are averaging about \$9 million less than historical amounts
- Maintenance activities that had been deferred in FY2010 were addressed as much as possible within the available resources using a combination of contract forces and SHA personnel
- Increased need for drainage system repairs, and maintenance and repair of eroded slopes
- Diverted some funding from aesthetic activities and traffic-related maintenance activities to activities that are needed to improve water quality, such as cleaning drainage facilities and repairing slopes along the edge of the road to improve drainage

### What Are Future Performance Strategies?

- Perform maintenance on critical traffic safety (e.g., traffic barriers and pavement markings) activities as a first priority
- Continue to prioritize funding for activities that help improve water quality, address safety concerns, and preserve the structure of the roadway
- Seek federal funding for line striping asset management program
- Due to additional funding reductions in the next two years, future performance is expected to remain below the desired target level

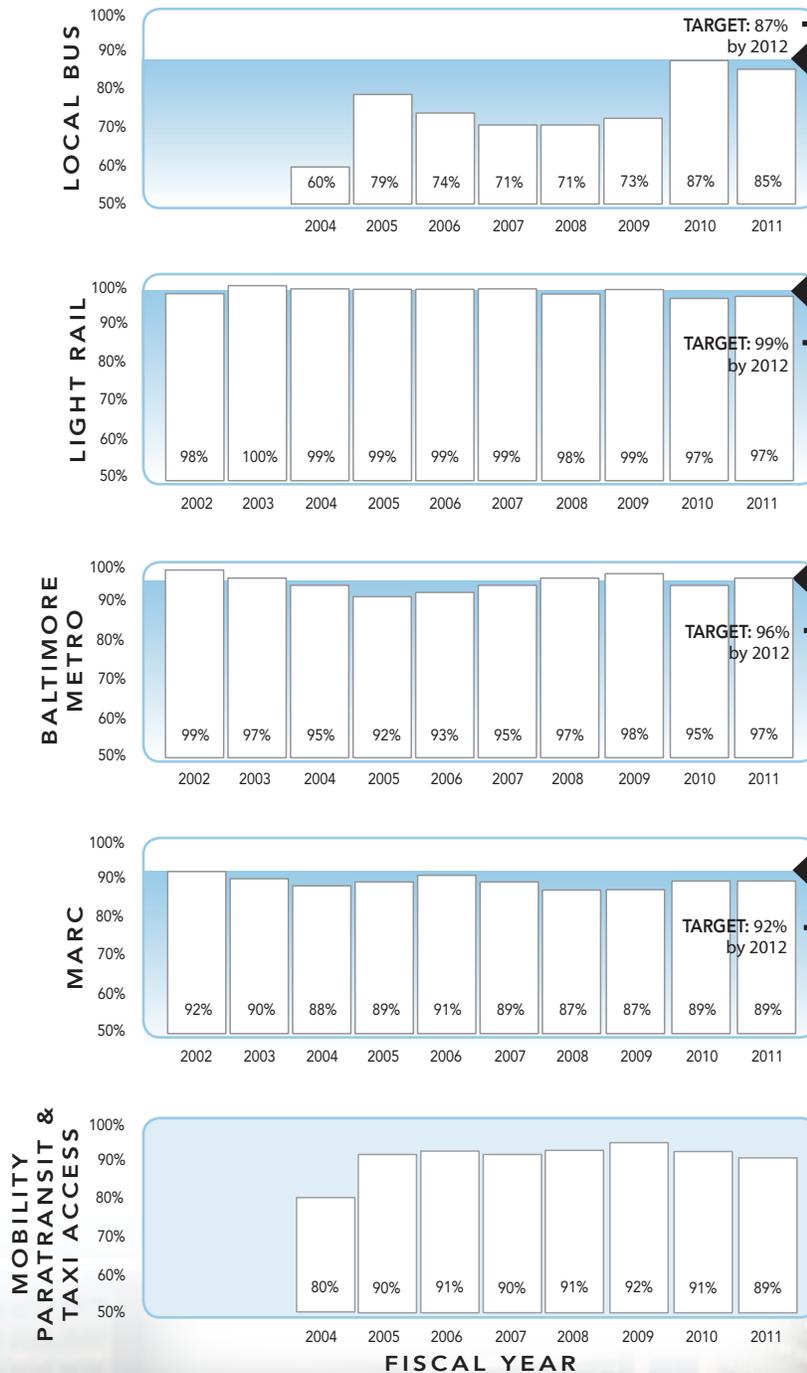


# NOW

ICC/MD 200 arch bridge over Rock Creek, designed to complement the natural terrain; opened to traffic in 2011

## MTA: Percent of Service Provided on Time

On time performance is an important indicator of service quality and efficiency, and correlates highly with system usage and customer satisfaction.



### Why Did Performance Change?

- Improved scheduling of required maintenance resulted in fewer delays for the Baltimore Metro
- Mobility Paratransit continues to respond efficiently to an increasing ridership base, while maintaining at or above 90% on time service through new programs to aggressively monitor on time performance
- Increase in frequency of Amtrak and CSX freight trains resulted in delays for Maryland Area Rail Commuter (MARC) trains; however, this did not change overall system performance

### What Are Future Performance Strategies?

- Filling job vacancies and addressing absenteeism issues will assist in improving Light Rail on time performance in FY2012
- Overhaul Light Rail cars to improve fleet reliability and service efficiency
- Overhaul MARC diesel and electric locomotives to improve reliability and extend equipment operational life
- MTA has programmed \$24 million in the FY2012-FY2017 CTP to improve local bus data collection and analysis by standardizing intelligent transportation system components across the bus fleet
- Implementation of the Centralized Control and Communication Center represents a critical improvement to MTA second-by-second operations and will bring multiple control centers into one room for improved real-time decision making
- Expand service offerings through *Mobility Direct*, an interactive voice response telephone option launched in 2011 designed to help MTA Mobility patrons manage their account and receive reminder calls or cancel scheduled pickups
- Continue to design system preservation work schedules for Light Rail and Metro around off-peak hours to reduce the number of customers adversely impacted
- MTA has programmed over \$119 million in funding from joint capital improvement agreements between MTA, Amtrak and CSX in the FY2012-FY2017 CTP to upgrade signal systems and passenger amenities on the MARC Camden, Brunswick, and Penn lines
- Increase use of CharmCards on local bus service to reduce boarding time and increase service reliability



# MTA: Customer Satisfaction Rating

Reliable, safe, and convenient service are key factors in attracting ridership. Customer satisfaction reflects whether MTA is meeting its customer service standards and signals which modes require improvement.

## Why Did Performance Change?

- 2011 survey results will be published in 2012

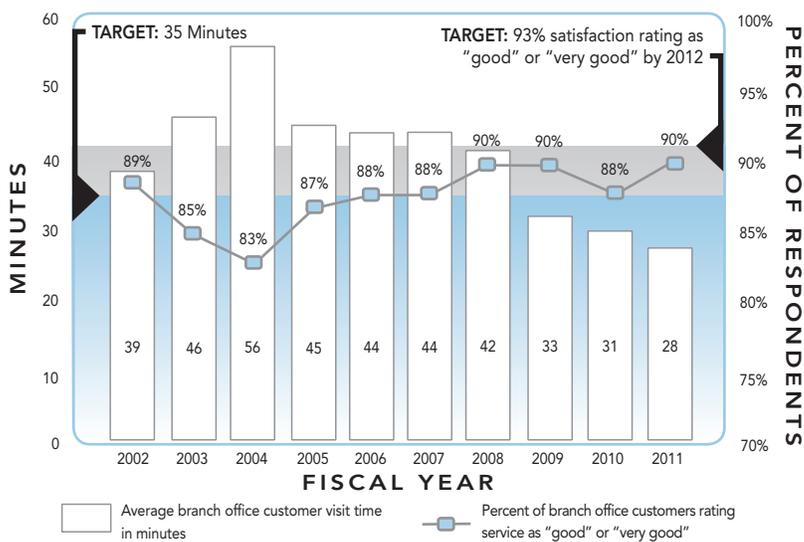
## What Are Future Performance Strategies?

- To help increase MTA's ability to track customers' perceptions throughout the year, the MTA is exploring venues to obtain real-time customer satisfaction from customers' mobile devices
- The MTA plans to utilize bus ridership data to better balance capacity and demand
- Continue Local Bus service improvements (e.g., scheduling), deployment of automatic vehicle locator technology on buses and real-time arrival information, and fleet replacements
- Provide additional park-and-ride facilities at transit stations
- Continue field observations of service (covert and overt) to identify performance issues
- Improve communications with customers in the event of service disruptions through the use of electronic media (e.g., emails, Twitter, website updates) as well as on-site and on-board announcements, including system-wide enhancements to PA-LED systems on MARC, Metro, and Light Rail



# MVA: Branch Office Customer Visit Time Versus Customer Satisfaction Rating

Average customer visit time is a key indicator of the quality and efficiency of service delivery to customers and is directly related to customer satisfaction (i.e., as MVA branch customer visit time decreases, customer satisfaction increases).



## Why Did Performance Change?

- Closely monitored actual visit time through use of the Customer Traffic Management system (CTM2), which measures and records the actual visit time
- Customer flow was consistently monitored and adjustments routinely made to ultimately decrease customer visit time
- Changed the registration renewal policy in FY2011 to mandate that registration renewals had to be completed by an alternative method
- Increased focus on moving auto dealer transactions to the Electronic Registration and Titling (ERT) system

## What Are Future Performance Strategies?

- Continue to analyze customer service data from the CTM2 and make appropriate adjustments to services
- Continue to develop new technical and personnel strategies to further drive down customer visit time
- Create a standard for Customer Agent performance and develop enhanced staff training to increase service efficiency, consistency of service, and effectiveness
- Enhance technical infrastructure and system applications for easy access to MVA data by customers, businesses, and government entities
- MVA plans expansion of alternative service delivery systems including kiosks and internet services with over \$6.4 million for this expansion programmed in the FY2012–FY2017 CTP

## MAA: Percent of BWI Marshall Customers Rating the Airport “Good” or “Excellent” on Key Services

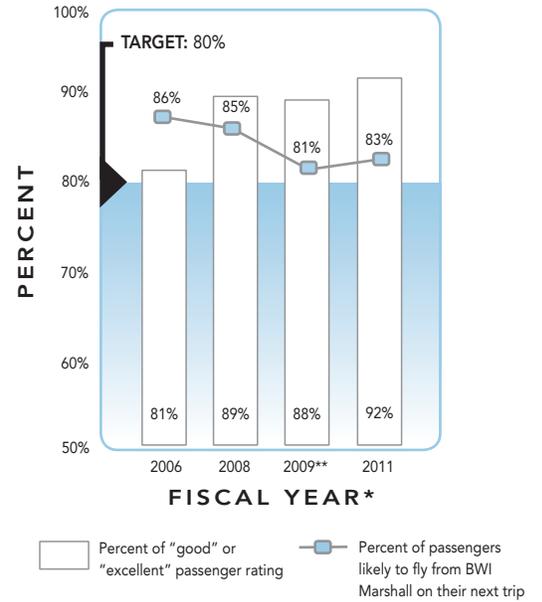
Customer surveys provide valuable feedback to agencies regarding service delivery, enabling them to continuously respond to customer needs.

### Why Did Performance Change?

- The BWI Marshall Survey Program was resumed in the spring of 2011
- The scores BWI Marshall receives from its passengers reflects improvements from the last survey and continues to exceed the target

### What Are Future Performance Strategies?

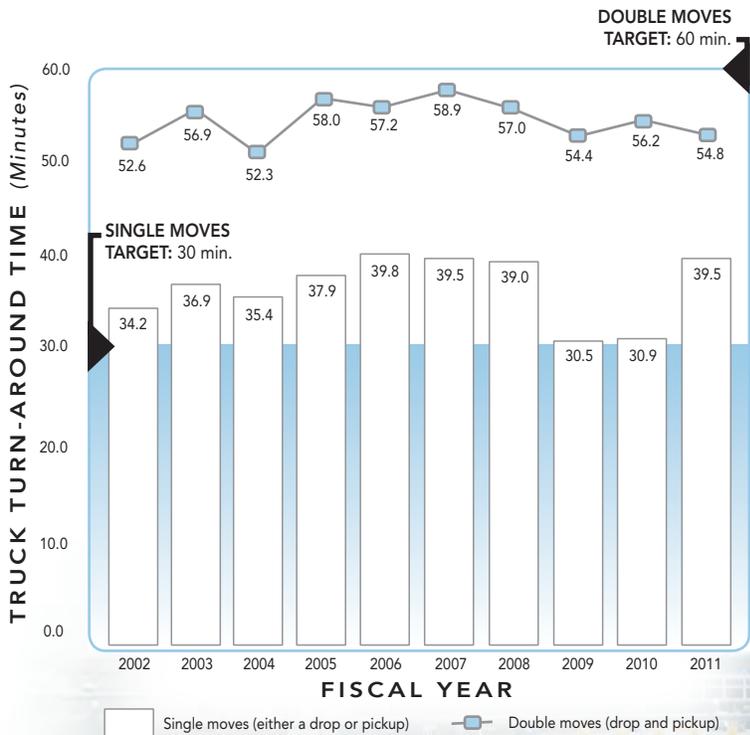
- Customer feedback is important to the MAA; the BWI Marshall Survey Program will continue in future years depending on funding availability



\* Surveys not administered in 2007 and 2010.  
 \*\*The 2009 rating only reflects first quarter 2009 data, not the full fiscal year.

## MPA: Average Truck Turn-Around Time at Seagirt Marine Terminal

Truck turn-around time is a gross measure of the efficiency and operations of the Seagirt Marine Terminal. Reductions in turn-around times improve throughput capacity and result in incremental environmental benefits.



### Why Did Performance Change?

- Truck turn-around times for single moves increased primarily due to chassis (trailer) ownership transition taking place within the maritime logistics industry
- Many of the major steamship lines have either sold their chassis or transferred ownership resulting in shortages of chassis due to repairs, volume controls, etc. leading to the increased times
- Implemented technology improvements to enhance processing efficiencies

### What Are Future Performance Strategies?

- Refine cost-benefit based evaluation methods and implement additional process improvements for greater gate and terminal performance
- Ensure that gate and terminal efficiencies are not adversely impacted by commercial activity improvements



# MDTA: Overall Customer Satisfaction of E-ZPass® Customers

This measure tracks the satisfaction of E-ZPass® private account holders.

## Why Did Performance Change?

- The MDTA did not conduct customer surveys in FY2011 as staff is re-examining the survey process to include in-house administration of future surveys
- MDTA responded to customers' suggestions made during the previous survey regarding adding E-ZPass® dedicated lanes to facility toll plazas

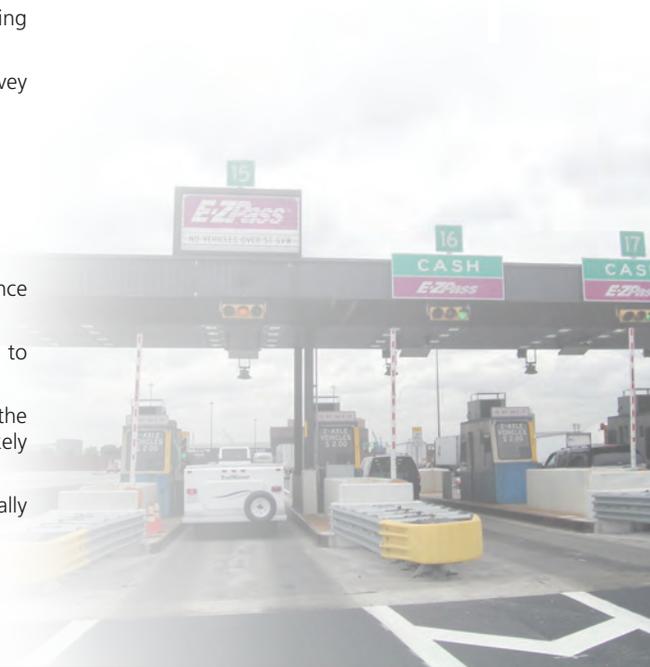
## What Are Future Performance Strategies?

- Analyze performance trends in relation to the performance target
- Develop comprehensive customer satisfaction survey program
- Implement comprehensive customer satisfaction survey program once completed and approved
- Forward customer satisfaction survey results to appropriate Divisions to encourage improvements
- Survey status for FY2012 is unclear due to the in-house transition of the survey process, as well as proposed implementation of toll increases that likely will affect survey results
- Continue to respond to customer suggestions for improvements, as fiscally possible

FISCAL YEAR*	2007	2010
Percent Satisfied	87%	86%

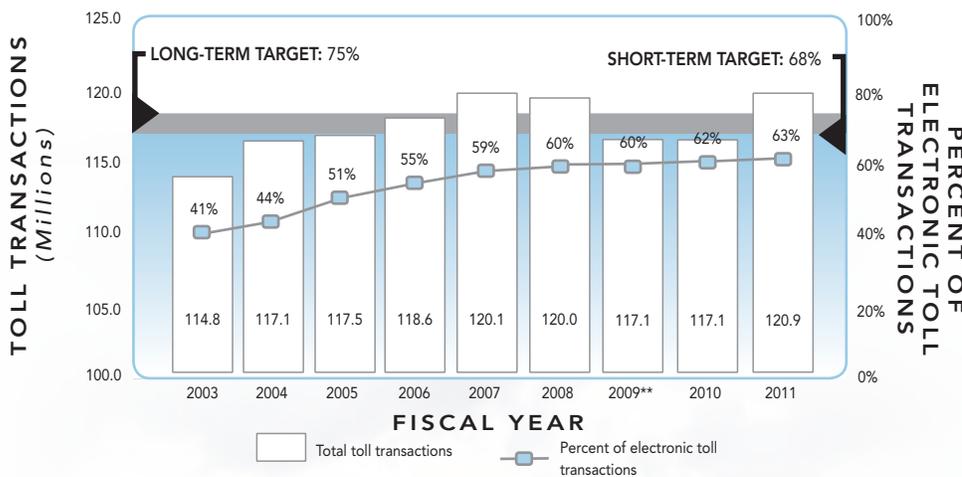
TARGET: 87% (Baseline year = 2007)

\* Survey not implemented in 2008, 2009 and 2011.



# MDTA: Percent of Toll Transactions Collected Electronically\*

Electronic toll collection systems expedite the toll collection process, reduce delays at toll plazas, decrease emissions, and are available at all eight toll facilities across the state.



\* Toll collections are paid as cash, ticket, or electronic transaction.

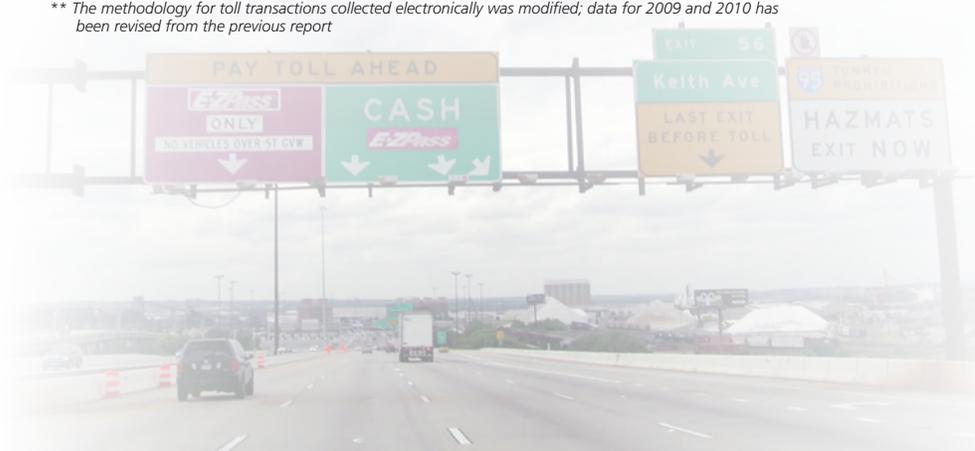
\*\* The methodology for toll transactions collected electronically was modified; data for 2009 and 2010 has been revised from the previous report

## Why Did Performance Change?

- Opened the Intercounty Connector (ICC)/MD 200 Section A (I-270 to MD 97)
- Conducted a public outreach campaign to encourage use of E-ZPass®
- Electronic toll transactions, including E-ZPass® transactions, continued to increase in volume and in the percentage of total transactions

## What Are Future Performance Strategies?

- Expand retail sales of E-ZPass® "On-The-Go" through new retail outlets
- Monitor electronic toll collection on the recently opened ICC/MD 200 Sections B and C
- Complete conversion of the Hatem Bridge Automatic Vehicle Identification (AVI) decal program to E-ZPass®
- Coordinate with BWI Marshall to allow payment of parking through E-ZPass® accounts at the hourly and daily garages



# Safety & Security

## Objectives

- 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

## Performance Measures

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	BWI Marshall crime rate	21
MAA	Number of repeat discrepancies in the annual Federal Aviation Administration's Federal Aviation Regulation inspection	22
MAA	Rate of airfield ramp incidents and accidents per 1,000 operations	21
MPA	MPA compliance with the Maritime Transportation Security Act of 2002	22
MTA	Customer perceptions of safety on the MTA system	20
MTA	Preventable accidents per 100,000 vehicle miles	20
MVA	Percent of Homeland Security REAL ID Act benchmarks achieved	20
SHA	Number of bicycle and pedestrian fatalities and injuries on all Maryland roads	19
SHA & MDTA	Annual number of traffic fatalities and personal injuries on all roads in Maryland	18

## Key Initiatives

- MDOT:** Continue to serve as a national leader in implementing truck safety programs and enforcement initiatives, as well as safe driving education programs for all motorists.
- MAA:** The BWI Marshall Fire and Rescue Department will continue to provide mutual aid service to nearby communities. The Department responded 1,092 times for mutual aid in FY2011.
- MPA:** Continue to expand the use of advanced technologies, such as radiation detectors and rail thermal imagery, at access gates.
- MTA:** Increase emphasis on pedestrian safety with Safe Turn Alert. The alert system is installed currently on 67 buses and planned for new buses, announcing to pedestrians when a bus is turning a corner.
- MDTA:** Enhance communications with an upgraded radio system, providing state, local, and regional public first responders' with real-time operable and interoperable voice and data services.
- MVA:** Play a key role in fatality reduction with enhancements to the Graduated License System (GLS), a new driving on-road skills test, and a completely updated driver manual.
- SHA:** Add automated speed enforcement locations through the Maryland SafeZones program to reduce the number of fatalities and injuries in work zones.

The safe and secure travel of all Maryland residents and visitors is a top priority for MDOT. Safety is considered throughout all agency functions, including planning, design, construction, and operation of the system. SHA recently led an update of the Strategic Highway Safety Plan (SHSP), following a data-driven, multidisciplinary approach involving agencies across the four E's of safety – engineering, education, enforcement, and emergency medical services. The result was a statewide comprehensive safety plan that provides a coordinated framework for reducing fatalities and serious injuries on all public roads. MDOT, local, regional, and Federal Transportation agencies are responsible for implementing strategies in the SHSP to prevent future roadway accidents. Maryland's roadway fatality and injury rates continue to decline, dropping 11% and 5.8% respectively from 2009 to 2010.

Maryland's transportation facilities, such as the Port of Baltimore, state highways, public transportation systems, and BWI Marshall are critical to secure movement of people and goods in the state. To prepare for, respond to, and recover from any natural or man-made disasters impacting the transportation system, Maryland's transportation agencies prepare emergency response plans and undergo regular exercises. These efforts helped MDOT ready its roads and vehicle assets for Hurricane Irene in 2011. For example, the MTA assisted with evacuation efforts on the Eastern Shore and assigned extra maintenance, operations, and administrative staff to ensure the continuity of transportation services before and after the storm. The advanced use of technology, including Closed Circuit TV (CCTV) capabilities and video-sharing within MDOT at the new Office of Homeland Security, also helps MDOT monitor, record, and respond to security and safety incidents at its transportation facilities.

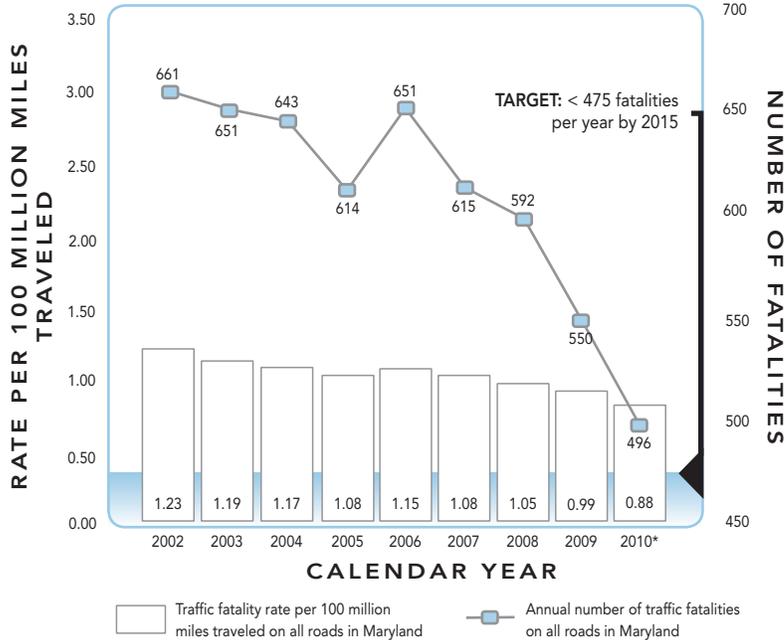


MD 924 in Bel Air, circa 2007

# SHA & MDTA: Annual Number of Traffic Fatalities and Personal Injuries on All Roads in Maryland

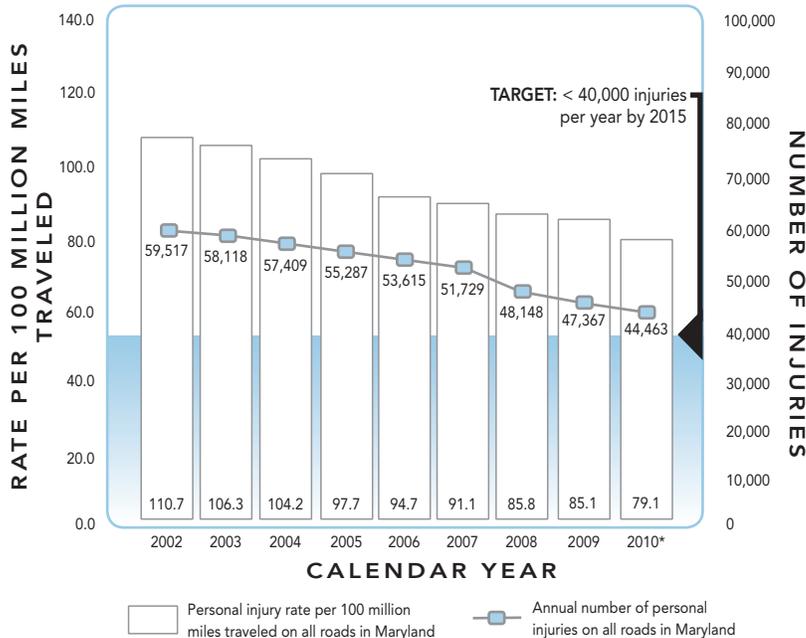
In line with international trends, Maryland uses reductions in the actual numbers of traffic fatalities and injuries as desired safety outcomes. Injury and fatality data help to assess the effectiveness of the Maryland SHSP and to identify tendencies and trends that assist in implementing a wide variety of countermeasures.

## Annual Number of Traffic Fatalities on All Roads in Maryland



\* 2010 data is preliminary and is subject to change.

## Annual Number of Personal Injuries on All Roads in Maryland



\* 2010 data is preliminary and is subject to change.

## Why Did Performance Change?

- Maryland's fatality rate continues to decline, dropping from 0.99 fatalities per million vehicle miles in 2009 to the current rate of 0.88
- Updated the SHSP, identifying strategies to reduce roadway fatalities and injuries. High priority emphasis areas include: pedestrian safety, distracted driving, occupant protection, impaired driving, infrastructure, and aggressive driving
- Commercial vehicle fatalities declined significantly in 2010, despite a slight increase in overall vehicle miles traveled
- Developed and implemented a comprehensive Facility Inspection Program Strategic Plan and an aggressive Systems Preservation Program specific to MDTA facilities
- Continued installation of rumble strips to reduce roadway departure and head-on crashes
- Provided staff training on the unique needs of older drivers through the Human Factors and Designing for Mature Drivers course

## What Are Future Performance Strategies?

- Implement the new SHSP for the years 2011 to 2015 that involves a multi-agency, multi-jurisdictional approach to continue to reduce fatalities and injuries along Maryland's highways
- Focus not only on issues and emphasis areas that cause the greatest number of traffic safety problems, but also focus on geographic locations where crashes are most prevalent
- Focus on six critical safety areas including: pedestrian safety, distracted driving, occupant protection, impaired driving, infrastructure, and aggressive driving



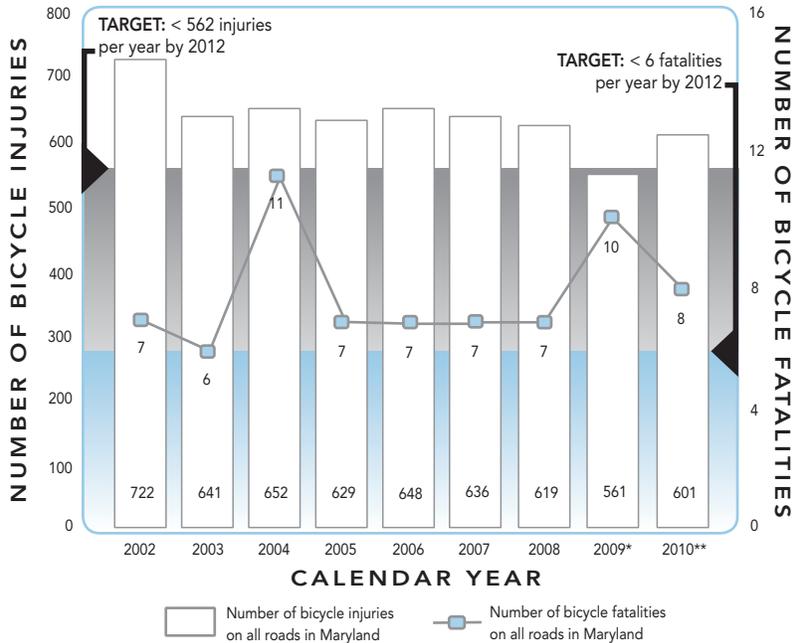
NOW

MD 924 Main Street Community Safety & Enhancement project completed in 2008 featuring pedestrian countdown timers, new buffered sidewalks, pedestrian bulbouts for safety, and street crossing pavement markings

## SHA: Number of Bicycle and Pedestrian Fatalities and Injuries on All Maryland Roads

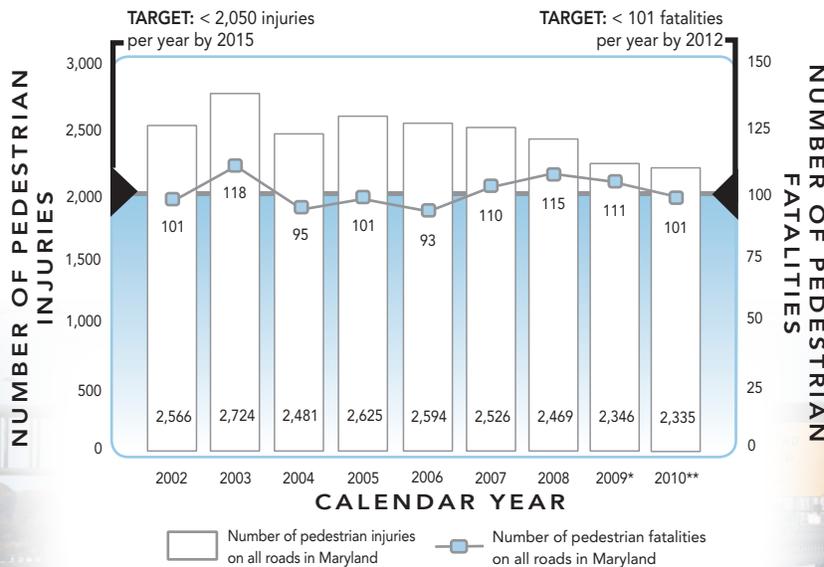
Maryland uses reductions in the actual numbers of bicycle and pedestrian fatalities and injuries as desired safety outcomes. Injury and fatality data help to assess the effectiveness of the Maryland SHSP and to identify tendencies and trends that assist in implementing a wide variety of countermeasures.

### Number of Bicycle Fatalities and Injuries on All Maryland Roads



\* 2009 data points were revised to reflect final CY2009 data.  
 \*\*2010 data is preliminary and is subject to change.

### Number of Pedestrian Fatalities and Injuries on All Maryland Roads



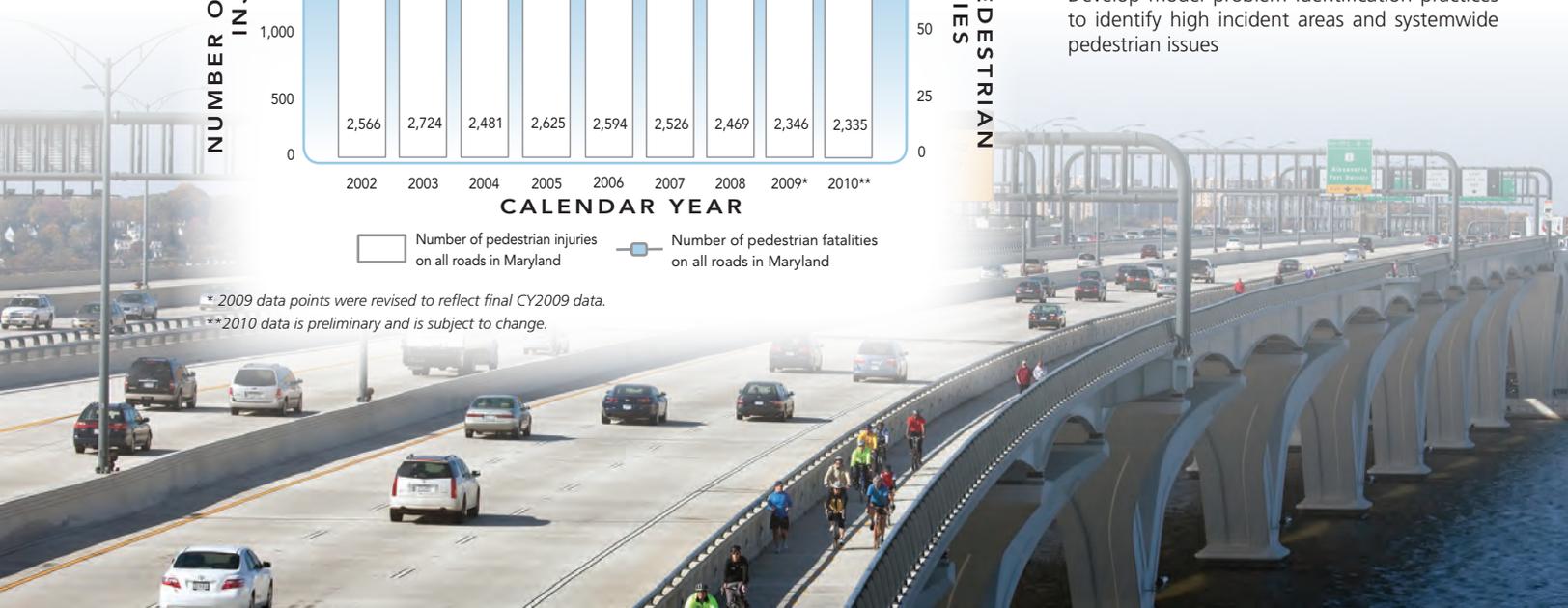
\* 2009 data points were revised to reflect final CY2009 data.  
 \*\*2010 data is preliminary and is subject to change.

### Why Did Performance Change?

- Conducted the StreetSmart awareness and enforcement campaign in the Washington, D.C., and Baltimore metropolitan regions
- Conducted road safety audits where a high number of pedestrian crashes occur
- Received \$3 million in Federal Safe Routes to School funds, totaling \$16 million to date
- Installed sidewalks adjacent to more than 25 miles of state roadways
- Installed accessible pedestrian signals at more than 631 intersections on state highways (to aid individuals with visual impairments)
- Supported the development of a bicycle safety ambassadors program in partnership with the nonprofit organization Bike Maryland

### What Are Future Performance Strategies?

- Implement the new SHSP, which includes pedestrian safety as one of the six emphasis areas
- Implement the Pedestrian Priority Location project, which develops coordinated action plans to address the top 24 pedestrian safety locations on the state highway system
- SHA's Community Safety and Enhancement Program dedicates \$116.9 million in the FY2012-FY2017 CTP. Based on recent and anticipated expenditures in this program, about \$6.7 million of this funding will support improved bike and pedestrian safety and access to commercial centers, transit facilities, schools and other public facilities in urban areas
- Coordinate the StreetSmart pedestrian safety outreach program and enforcement campaign with traffic engineering efforts in the Baltimore and Washington, D.C., metropolitan areas
- Expand the partnership with Bike Maryland to conduct bicycle safety outreach to at-risk youth in the Baltimore City region
- Continue to implement the Complete Streets policy
- Integrate revised bicycle guidelines into SHA designs
- Integrate bicycle facility data into the enterprise geographic information system (GIS)
- Develop model problem identification practices to identify high incident areas and systemwide pedestrian issues



# MTA: Customer Perceptions of Safety on the MTA System

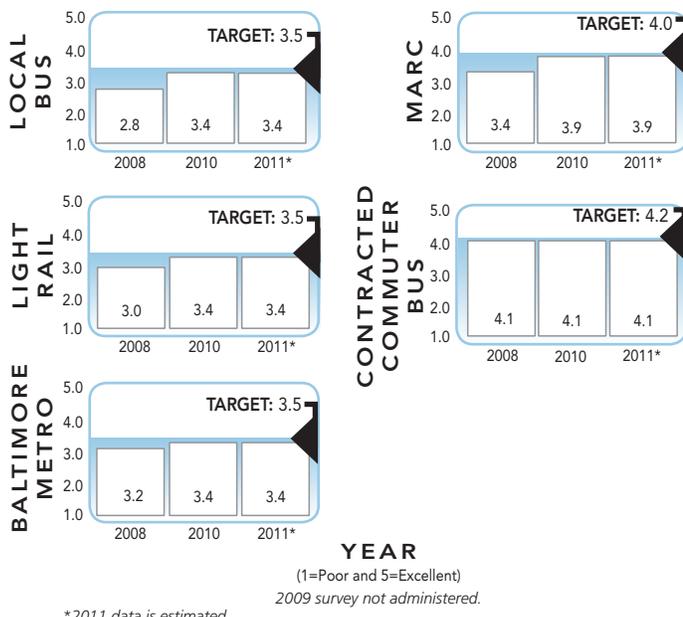
A positive perception of personal safety is correlated with higher ridership and stronger commitment to transit as a mode of travel.

## Why Did Performance Change?

- 2011 data is estimated—2011 survey results will be published in 2012

## What Are Future Performance Strategies?

- Continued safety and security programs, such as the Zone Enforced Uniform Sweeps (ZEUS) and CompStat
- Instituted a Police Cadet Program to increase the presence of security patrols
- MTA continues to install additional CCTV facilities at Baltimore Metro stations and Light Rail stations as well improve camera systems onboard the bus fleet
- In the FY2012–FY2017 CTP, MTA has programmed over \$48.4 million in Department of Homeland Security grants to enhance law enforcement resources on the entire MTA system



# MTA: Preventable Accidents Per 100,000 Vehicle Miles

MTA has developed a baseline from which to reduce preventable accidents, increase efficiency, and provide a safer ride to customers.

CALENDAR YEAR	2007	2008	2009	2010*	2011**	TARGET
<b>Accident Rate</b>						
Local Bus	2.50	2.50	2.87	2.83	3.17	Reduce by 7%
Light Rail	n/a	n/a	0.06	0.31	0.13	Reduce by 1%
Baltimore Metro	n/a	n/a	0.06	0.17	0.05	Reduce by 1%
Paratransit/Taxi Access	n/a	n/a	1.14	0.00	0.19	Reduce by 2%

(Baseline year = 2008)  
\* 2010 was revised to adjust for final data.  
\*\* 2011 data is preliminary since the year was not complete at the time this Report was published.

## Why Did Performance Change?

- The estimated number of Local Bus preventable accidents is higher this year than last due in part to an increase in minor fixed object accidents
- The Light Rail and Baltimore Metro estimated preventable accident rate decreased significantly due to continued rail safety efforts
- MTA revamped post accident training, tracking progress toward better training procedures in their internal performance management program and regularly reviewed accident and safety data to better direct resources

## What Are Future Performance Strategies?

- Continue to increase accountability of operators who have multiple preventable accidents and implement revised safety policy and procedures
- Institute immediate retraining for operators with a preventable accident and utilized bus simulators for more efficiency in training
- Continue to review accidents with the aid of geographic information systems (GIS) to determine patterns in operators, times of day, accident locations and intersections
- Continue to regularly re-certify operators, including extensive safety training
- Enhance pedestrian safety through expanding the Safe Turn Alert pilot program, which announces to pedestrians when a bus is turning a corner

# MVA: Percent Of Homeland Security REAL ID Act Benchmarks Achieved

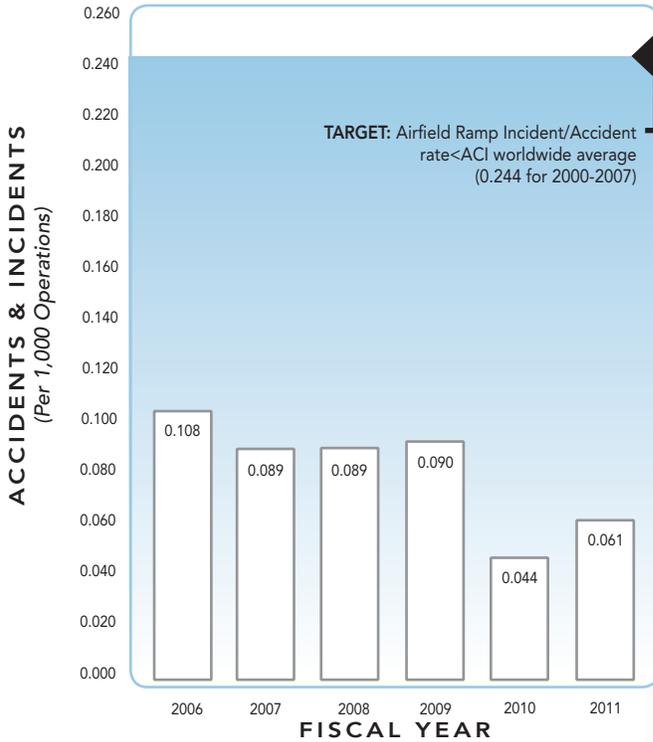
The Federal REAL ID Act of 2005 sets new standards for issuing driver licenses and identification cards, and is intended to improve the integrity and security of state-issued driver licenses and identification cards. On January 15, 2008, Governor Martin O'Malley directed MDOT to create a state driver's license that fully complies with the Federal REAL ID regulations released by the Department of Homeland Security. The REAL ID compliant license in Maryland requires an individual to provide proof of lawful presence in the United States, as legislatively required by Congress under the REAL ID Act of 2005. The REAL ID process has been phased in over time to enable states to achieve the required 39 Federal benchmarks in order to be in Full Compliance with REAL ID. As of August 2011, the MVA has achieved an 85% Full Compliance rate, meaning 33 of the 39 benchmarks have been successfully accomplished. Currently, the MVA is awaiting technological solutions from Federal and other State government agencies in order to achieve all 39 of the benchmarks.

## What Are Future Performance Strategies?

- Staff and support the Real ID Executive Committee to provide direction and enact policies to ensure Maryland's compliance with the Federal Real ID Act
- Proactively develop and implement policies, procedures and technologies to achieve completion of the 39 Federal Real ID benchmarks
- Administer and support legislation and regulations that require individuals to provide proof of lawful presence in the U.S.
- Execute federal and state funds to enhance the integrity and security of state-issued driver licenses and identification cards

## MAA: Rate of Airfield Ramp Incidents and Accidents Per 1,000 Operations

This measure provides an indication of the safety and security of operations-related activity at BWI Marshall.



### Why Did Performance Change?

- Rate of airfield incidents and accidents is consistently well below the average rate, as reported by Airports Council International (ACI)

### What Are Future Performance Strategies?

- Work toward developing and initiating a Safety Management System (SMS) to address safety issues and concerns before they develop into accidents or incidents
- The Federal Aviation Administration (FAA) has issued a Notice to Proceed for Rulemaking for an SMS policy for airports. The final rule will be issued after receiving comments from U.S. airports



### Why Did Performance Change?

- BWI Marshall's actual number of crimes committed continues to be well below targets

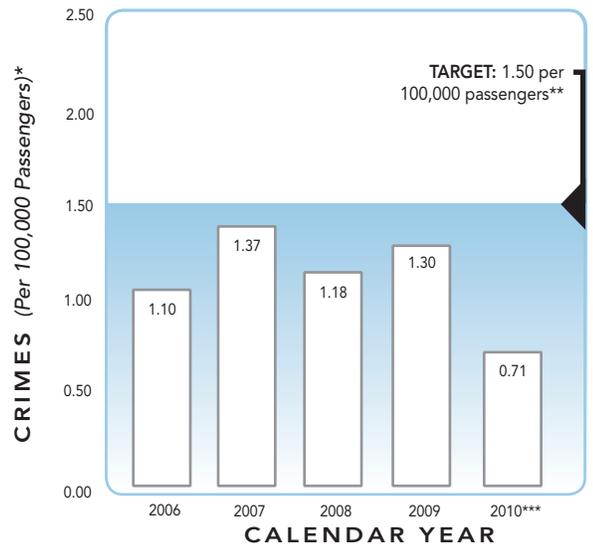
### What Are Future Performance Strategies?

- Continue to expand new technologies and integrate Consolidated Dispatch Center (CDC) systems with CCTV and Controlled Access Security (CASS) systems to better monitor, record, and respond to security and safety incidents
- Continue security inspections (e.g., random inspections of airfield vehicles and employees by MDTA law enforcement personnel)



## MAA: BWI Marshall Crime Rate

This measure provides an indication of the relative safety passengers experience when traveling through BWI Marshall. Poor performance in this area could result in a decline in passenger numbers.



\* Implemented new methodology in 2010 and added additional types of crime to calculations. Updated all historical data to reflect the new methodology.  
 \*\* Revised target from 1.30 to 1.50 to reflect changes in methodology.  
 \*\*\* 2010 data is preliminary and may be revised.

## MAA: Number of Repeat Discrepancies in the Annual Federal Aviation Administration's Federal Aviation Regulation Inspection

The passing of Federal Acquisition Regulation (FAR) Part 139, which governs the certification and operation of U.S. commercial airports, is requisite for the airport to remain open and operational.

Each year, MAA works closely with the FAA to ensure that BWI Marshall remains in compliance with the provisions of FAR Part 139 and maintains its FAA-issued operating certificate. Compliance is determined by annual inspections conducted by the FAA. Work orders are generated when Letters of Correction are issued and are given high priority with urgent resolution. BWI Marshall successfully completed the 2011 FAA safety and certification inspection with zero repeat discrepancies. MAA will continue to address all discrepancies in accordance with the federally prescribed timeline.

### What Are Future Performance Strategies?

- Work closely with FAA to ensure that BWI Marshall passes its annual safety and certification inspection
- Continue working with FAA to implement the SMS program
- Focus activities on achieving a 100% compliance with safety and certification requirements
- Update security monitoring and response alert systems
- Comply with FAA Runway Safety Area standards by December 2015 (\$354.6 million programmed in the FY2012-FY2017 CTP for Runway Safety Area/Pavement Management Program Improvements)

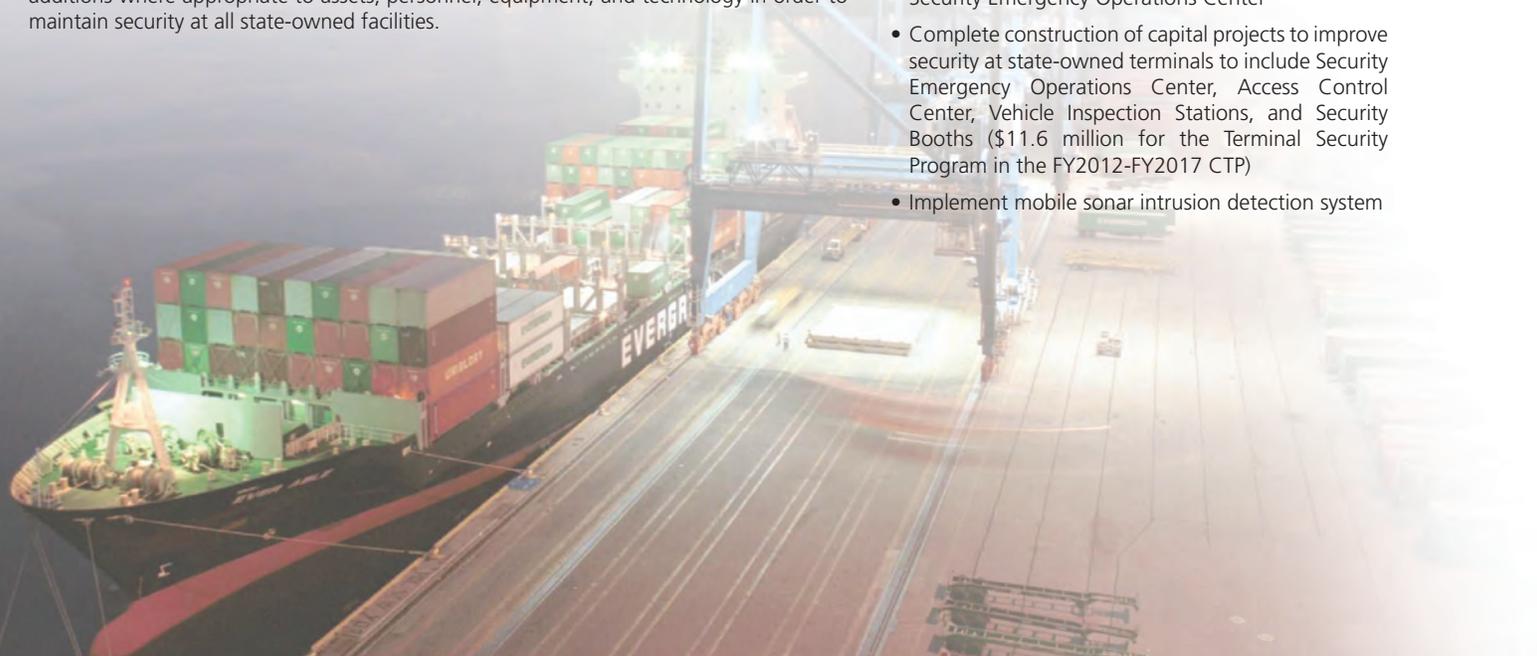
## MPA: MPA Compliance with the Maritime Transportation Security Act of 2002

The MPA is required to maintain and execute a Facility Security Assessment and Plan. MPA terminals can be closed by the U.S. Coast Guard if found not in compliance with the Maritime Transportation Security Act (MTSA) of 2002.

As required by the MTSA of 2002, all MPA terminals' Facility Security Assessment and Facility Security Plans currently meet MTSA requirements and have been approved by the U.S. Coast Guard. The U.S. Coast Guard will issue an order to cease operations if an MPA facility is not in compliance. Closure of a public terminal has never occurred at MPA. In MPA's most recent U.S. Coast Guard annual inspection, MPA met or exceeded all aspects of the inspection. MPA will continue to assess its security plans and make adjustments or additions where appropriate to assets, personnel, equipment, and technology in order to maintain security at all state-owned facilities.

### What Are Future Performance Strategies?

- Execute \$12 million in state and federal capital funds to improve and protect critical infrastructure at the Port of Baltimore
- Continue to expand use of advanced devices (e.g. radiation detectors and Rail Thermal Imagery) at access gate
- Actively participate in maritime and homeland security and enforcement initiatives with Federal, State and local Port partners
- Continue to expand CCTV capabilities to include video-sharing within MDOT through the new Security Emergency Operations Center
- Complete construction of capital projects to improve security at state-owned terminals to include Security Emergency Operations Center, Access Control Center, Vehicle Inspection Stations, and Security Booths (\$11.6 million for the Terminal Security Program in the FY2012-FY2017 CTP)
- Implement mobile sonar intrusion detection system



# System Preservation & Performance

## Objectives

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

## Performance Measures

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	Airline cost per enplaned passenger (CPE)	30
MAA	Non-airline revenue per enplaned passenger (RPE)	30
MPA	Adequate dredge material placement capacity remaining for Harbor and Bay maintenance and new work dredging	31
MPA	Revenue versus operating expense	32
MTA	Operating cost per passenger trip	27
MTA	Operating cost per revenue vehicle mile	28
MTA	Passengers per revenue vehicle mile	26
MVA	Cost per transaction	29
MVA	Alternative service delivery transactions as percent of total transactions	29
SHA	User cost savings for the traveling public due to incident management	25
SHA & MDTA	Percent of roadway miles with acceptable ride quality	24
SHA & MDTA	Number of bridges and percent that are structurally deficient	24

## Key Initiatives

- MDOT:** To identify how well key transportation performance indicators are being met, MDOT participates in bi-weekly meetings with other State agencies to report and respond to questions on agency performance and priority initiatives.
- MAA:** BWI will conduct several airfield pavement maintenance and rehabilitation projects, along with Runway Safety Act (RSA) improvements to ensure that BWI Marshall meets updated Federal Aviation Administration (FAA) standards by the end of 2015.
- MPA:** Continue to support Maryland's Dredged Material Management Program.
- MTA:** Repair and maintain Maryland Area Rail Commuter (MARC) coaches through "10-year minor" and "20-year mid-life" maintenance schedules, which extend the life cycle of mechanical systems and car bodies.
- MDTA:** Continue to make needed preservation improvements to all facilities, including resurfacing travel lanes and ramps, rehabilitating and/or painting of bridges, and upgrading signs and lighting.
- MVA:** Continue to invest in information technology, including the Accounts Receivable System and Flag Fee Processing, to maintain cost-efficiencies.
- SHA:** Continue to implement an asset management approach to pavement repair projects that sustains a smooth ride, which is the hallmark of Maryland's roads.

System preservation and systems management and operations are priority elements of MDOT's strategy to manage its transportation system. While daily drivers may only notice transportation facilities when there are problems—a pothole or unexpected traffic congestion—providing a quality transportation system requires investment in preserving the existing transportation system and day-to-day management of transportation facilities to ensure they are available and reliable for travelers. To protect Maryland's transportation system investment, MDOT will provide \$811.2 million in FY2012 for system preservation and systems management and operations projects and programs.

A priority area of investment for the State Highway Administration (SHA) and the Maryland Transportation Authority (MDTA) is improving the condition of bridges across the state. The SHA coordinates an aggressive maintenance program which employs up to 12 contractor construction crews working continuously throughout the year to keep bridges safe in Maryland. Critical links in Maryland's transportation system, including the Chesapeake Bay Bridge (US 50), the Francis Scott Key Bridge (I-695), the Millard E. Tydings Bridge (I-95), and the Governor Harry W. Nice Bridge (US 301), are all planned to undergo preservation and maintenance activities in the FY2012-FY2017 CTP.

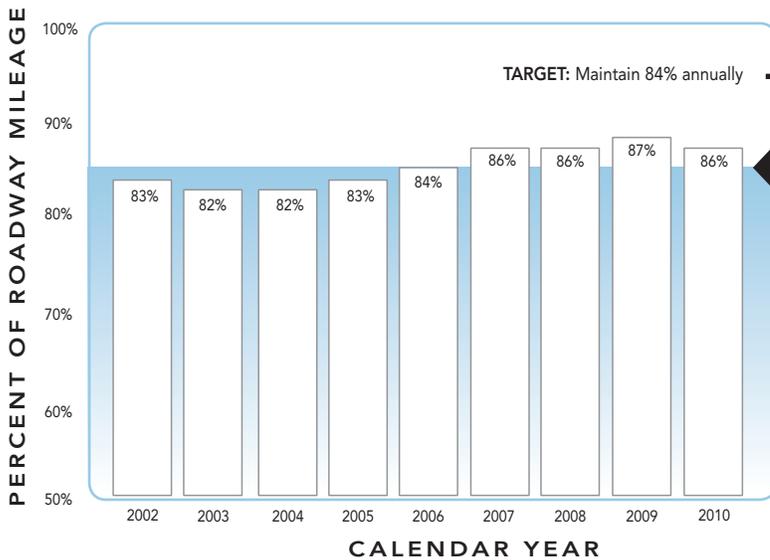
MDOT's transportation agencies utilize operational strategies including incident response, intersection and interchange improvements, electronic tolling, traffic signing, lighting, and signal coordination. For example, Maryland's new Intercounty Connector (ICC)/MD 200 is the first all-electronic toll facility in Maryland, designed to allow tolls to be collected electronically using E-ZPass® at highway speeds. Maryland's Coordinated Highways Action Response Team (CHART) is also critical to the performance of Maryland's roadways. CHART provides quick response to traffic incidents through emergency response, road/debris clearing, and real-time communication of information.



Thomas J. Hatem Memorial Bridge  
redecking project (US 40), circa 2009

## SHA & MDTA: Percent of Roadway Miles with Acceptable Ride Quality

The traveling public has identified acceptable ride quality (i.e., the smoothness or roughness of the pavement) as a priority. Ride quality facilitates mobility, efficiency, and safe movement of people and goods within Maryland.



### Why Did Performance Change?

- Implemented SHA operations and business plan strategies designed to efficiently maintain ride quality with limited resources
- Identified cost-effective projects using benefit-cost analysis
- Used Federal ARRA funds to replace cuts in state funding, sustaining good pavement quality

### What Are Future Performance Strategies?

- Implement the SHA and Federal Highway Administration (FHWA) approved Pavement Preservation Program that will strategically utilize system preservation activities
- Implementation of an aggressive Systems Preservation Program
- Expand the use of recycled materials (e.g., concrete, asphalt) in roadway projects

## SHA & MDTA: Number of Bridges and Percent That Are Structurally Deficient

The structurally deficient rating is an early warning sign to prioritize funding and to initiate repairs, or to begin the bridge replacement process. The rating applies to three main elements of a bridge: 1) deck (riding surface); 2) superstructure (main supporting element of the deck); and 3) substructure (supports to hold up the superstructure and deck). These elements are rated on a scale from zero (closed to traffic) to nine (relatively new). If any of the three elements is rated as a four or less, the bridge is categorized as structurally deficient by Federal standards. This does not mean that the bridge is unsafe; if a bridge becomes unsafe, it is closed.

CALENDAR YEAR	2006	2007	2008	2009	2010*	2011*
Number deficient	145	132	133	117	111	110
Percent deficient	5.2%	4.7%	4.7%	4.1%	3.9%	3.9%

TARGET: 114 total bridges by 2012

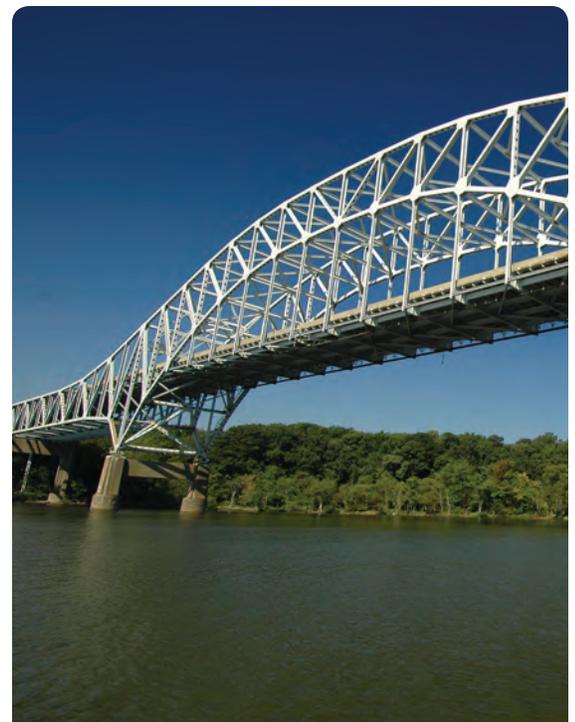
\* In calendar year 2010, MDTA added seven bridges for the I-95 Express Toll Lanes<sup>SM</sup> (ETLs<sup>SM</sup>) project. In calendar year 2011, MDTA added 13 bridges along the ICC/MD200. In 2010 MDTA bridge ratings were revised, 2010 data has been revised from the previous report to reflect this new rating methodology.

### Why Did Performance Change?

- Implemented an aggressive bridge maintenance program which keeps up to 12 maintenance crews working year-round
- Implemented a comprehensive Facility Inspection Program Strategic Plan
- Performed annual Structural Inventory & Appraisal Assessment on all MDTA facilities
- Reviewed and revised MDTA bridge ratings based on total ratings for bridges
- Addressed bridges that were deficient and minimized the number of bridges that may become deficient
- Created plans to replace structures that would not benefit from remedial work

### What Are Future Performance Strategies?

- Monitor the ride quality of bridge approaches and bridge decks
- Prioritize projects in order to reduce the number of weight postings and the number of bridges with existing weight restrictions that must be lowered further
- Commence engineering activities on structurally-deficient bridges to build an inventory of shovel-ready projects should additional funding be identified
- Perform immediate structural evaluations on water crossings after local storm event
- In the FY2012–FY2017 CTP, MDTA has programmed over \$255 million in funding to maintain and repair bridges on MDTA-operated facilities throughout Maryland



NOW

View along the completed Thomas J. Hatem Memorial Bridge featuring a new steel grid deck, an additional 2 feet of bridge width, and new concrete parapets and median barrier

## SHA: User Cost Savings for the Traveling Public Due to Incident Management

The total user cost savings to motorists and commercial traffic (from reduced delay) reflects the tangible benefits of the CHART incident management program.



### Why Did Performance Change?

- Responded to and cleared more than 16,000 incidents and assisted more than 21,000 stranded motorists
- Helped reduce delay by an estimated 41.65 million vehicle-hours
- Deployed four new Closed Circuit TV (CCTV) cameras, bringing the statewide total to 144
- Increased camera video feed interoperability with other regional agencies to allow for access to 541 camera sites in Maryland
- Implemented a 511 traveler information system in Maryland in August 2011
- Equipped 36 CHART vehicles with an Automatic Vehicle Location (AVL) system to facilitate more efficient responses and better deployment of resources

### What Are Future Performance Strategies?

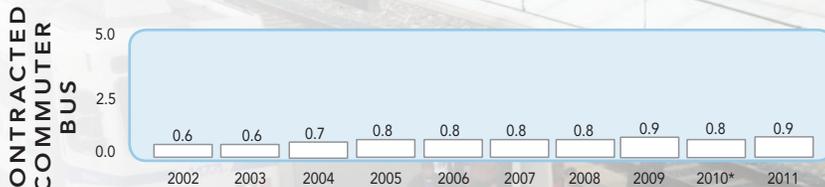
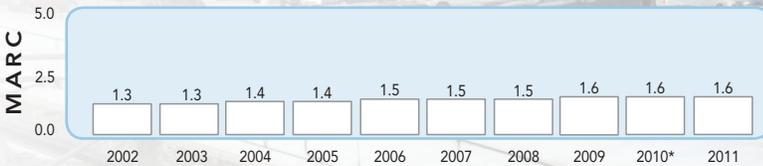
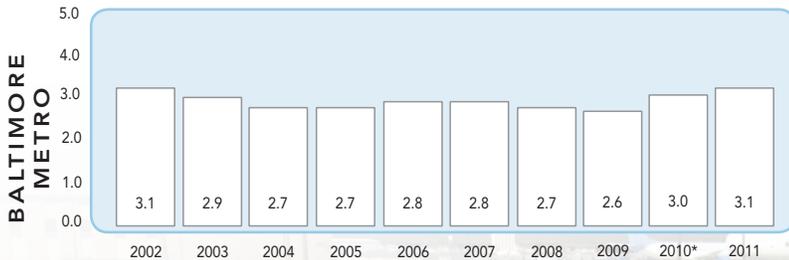
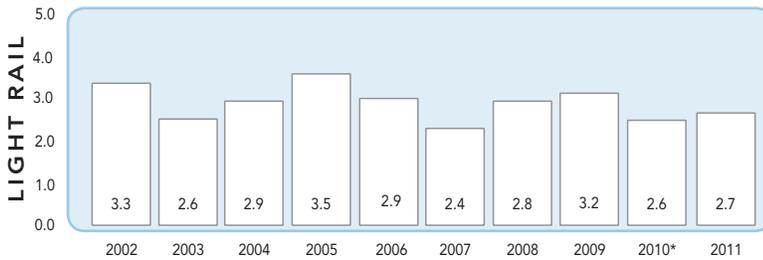
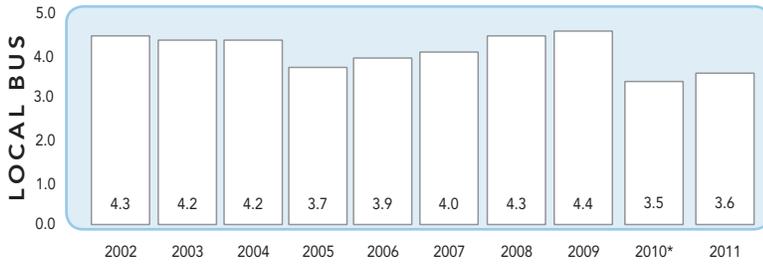
- Expand the CHART patrol coverage area to continue to reduce user delay and other user costs
- Explore cost-effective uses of limited resources through local, regional, and state incident management coordination and collaboration
- Continue to explore agency partnerships for the sharing of camera information
- Provide dynamic message boards to aid in the reduction of travel time, reduce congestion and provide critical traffic information for the traveling public (\$9.1 million programmed through FY2013 in the FY2012–FY2017 CTP)



# MTA: Passengers Per Revenue Vehicle Mile

Passengers per revenue vehicle mile, or service productivity, is a function of the frequency of service and total ridership, which are typically related. Growth in service productivity may be restricted on certain modes by existing and planned service levels and capacity. Revenue vehicle miles are the miles traveled by transit vehicles while carrying paying passengers. Miles traveled to the first pick-up point, for example, are not considered to be in revenue service.

PASSENGERS PER REVENUE VEHICLE MILE



FISCAL YEAR

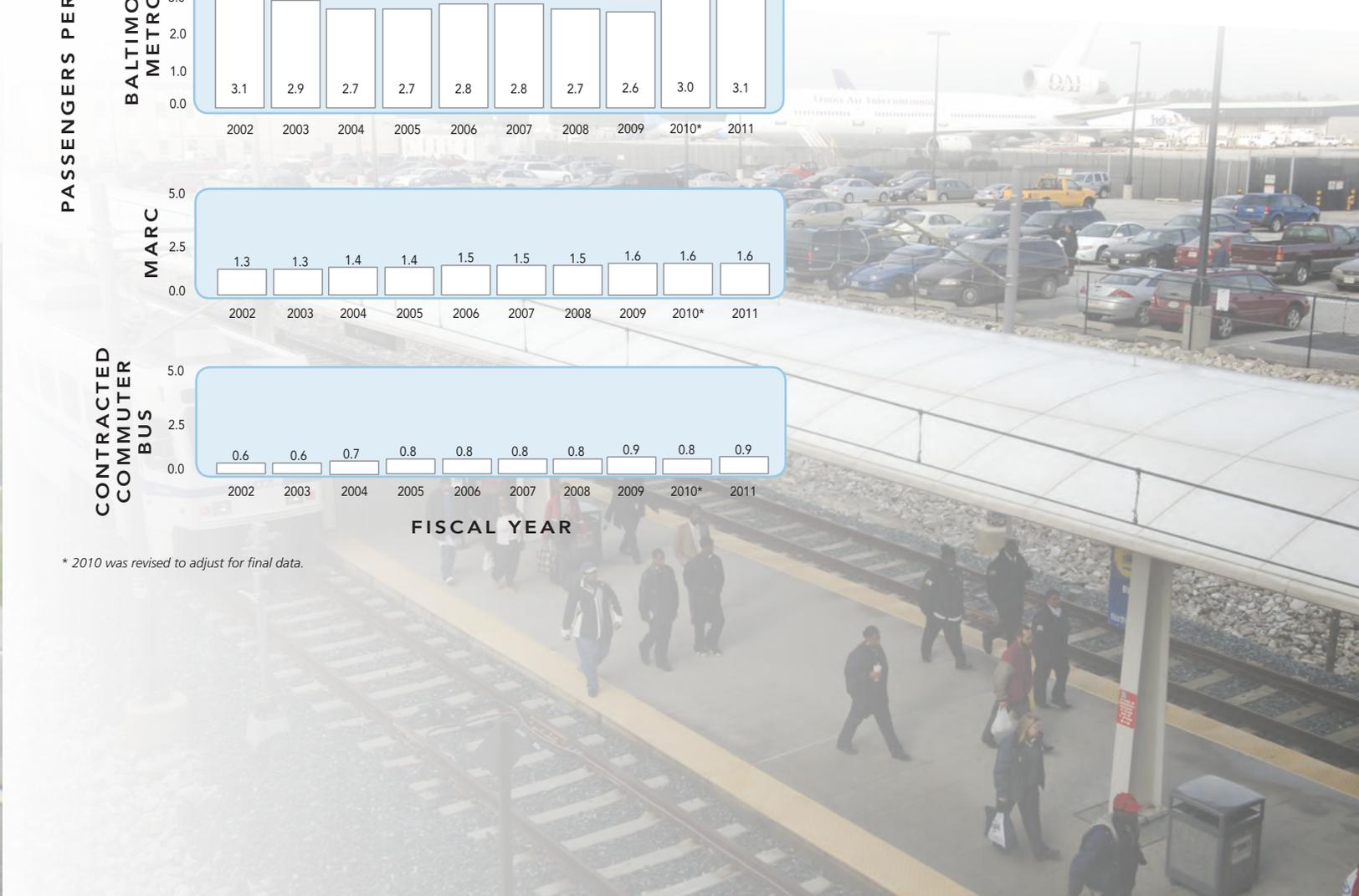
\* 2010 was revised to adjust for final data.

## Why Did Performance Change?

- Passengers per revenue mile increased slightly in FY2011 compared to FY2010 on all modes except MARC, which remained consistent
- Many modes operated by MTA are at or near capacity (MARC and many routes on local bus) which hinders ridership growth

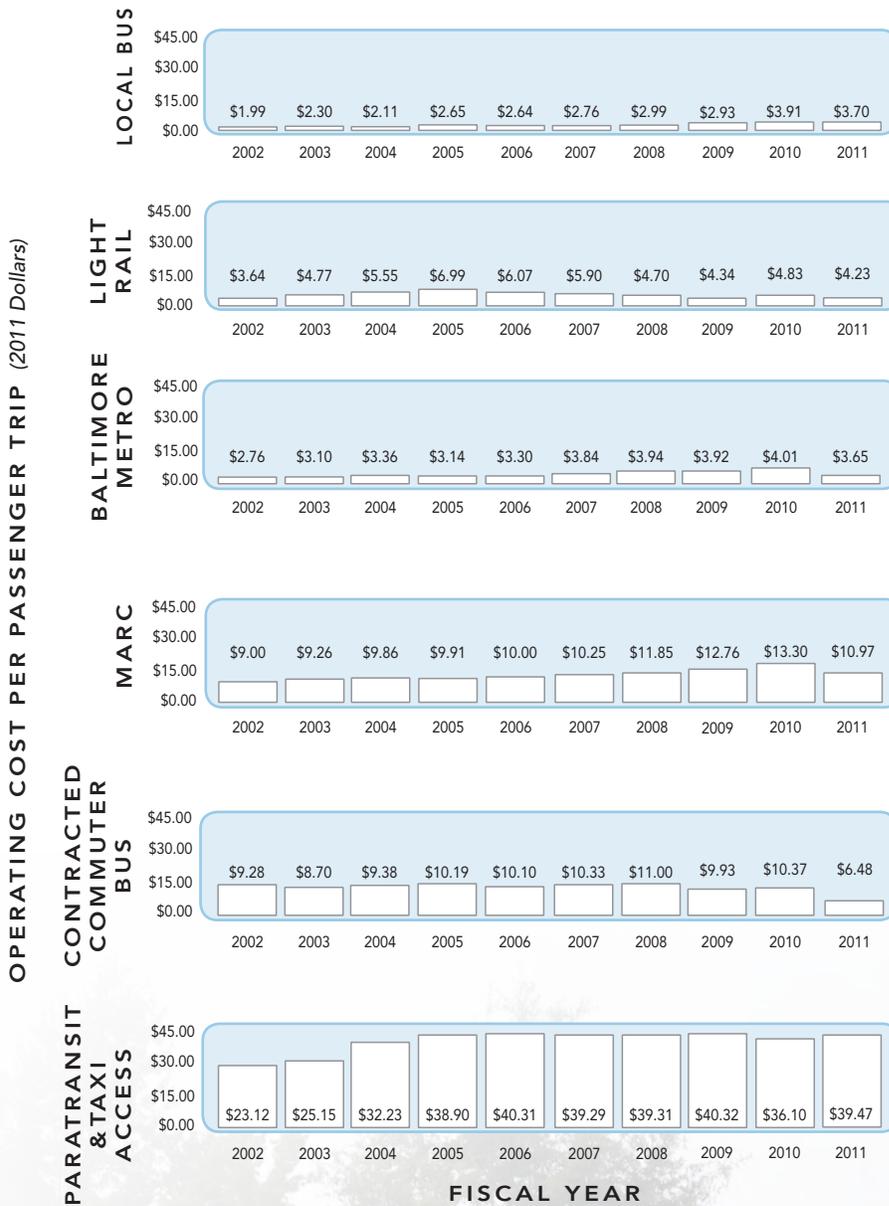
## What Are Future Performance Strategies?

- Continue to modify schedules to increase service in high demand areas
- Expand capacity on the MARC system through the procurement of new rail cars
- Continually improve quality of all transit service to enhance customer satisfaction by implementing comprehensive quality assurance procedures
- Establish the Bus Service Allocation Task Force to determine patterns in local bus ridership demand and allocate service accordingly



# MTA: Operating Cost Per Passenger Trip

Together, the operating cost per passenger trip and operating cost per revenue vehicle mile are key industry performance measures and show MTA's ability to effectively and efficiently provide service to passengers on various modes of travel.



TARGET: Cost per passenger for Local Bus, Baltimore Metro, and Light Rail to increase at a rate no higher than the Consumer Price Index (CPI)\*

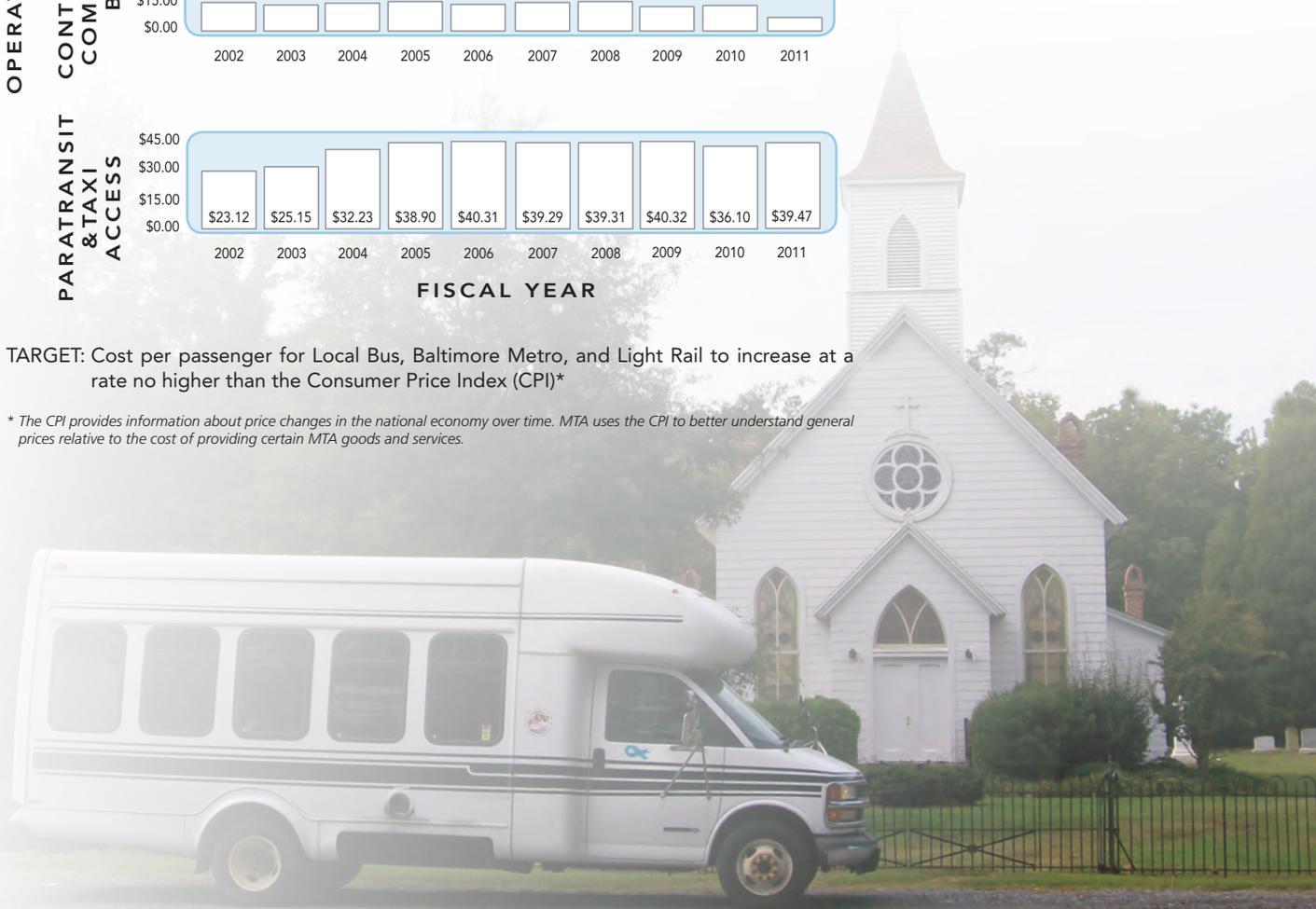
\* The CPI provides information about price changes in the national economy over time. MTA uses the CPI to better understand general prices relative to the cost of providing certain MTA goods and services.

## Why Did Performance Change?

- Major cost drivers include diesel fuel and labor agreements
- Light Rail is transporting about 1,000 more people daily when comparing 2011 with 2010 average weekday ridership
- Ridership increases have outpaced growth in operating costs

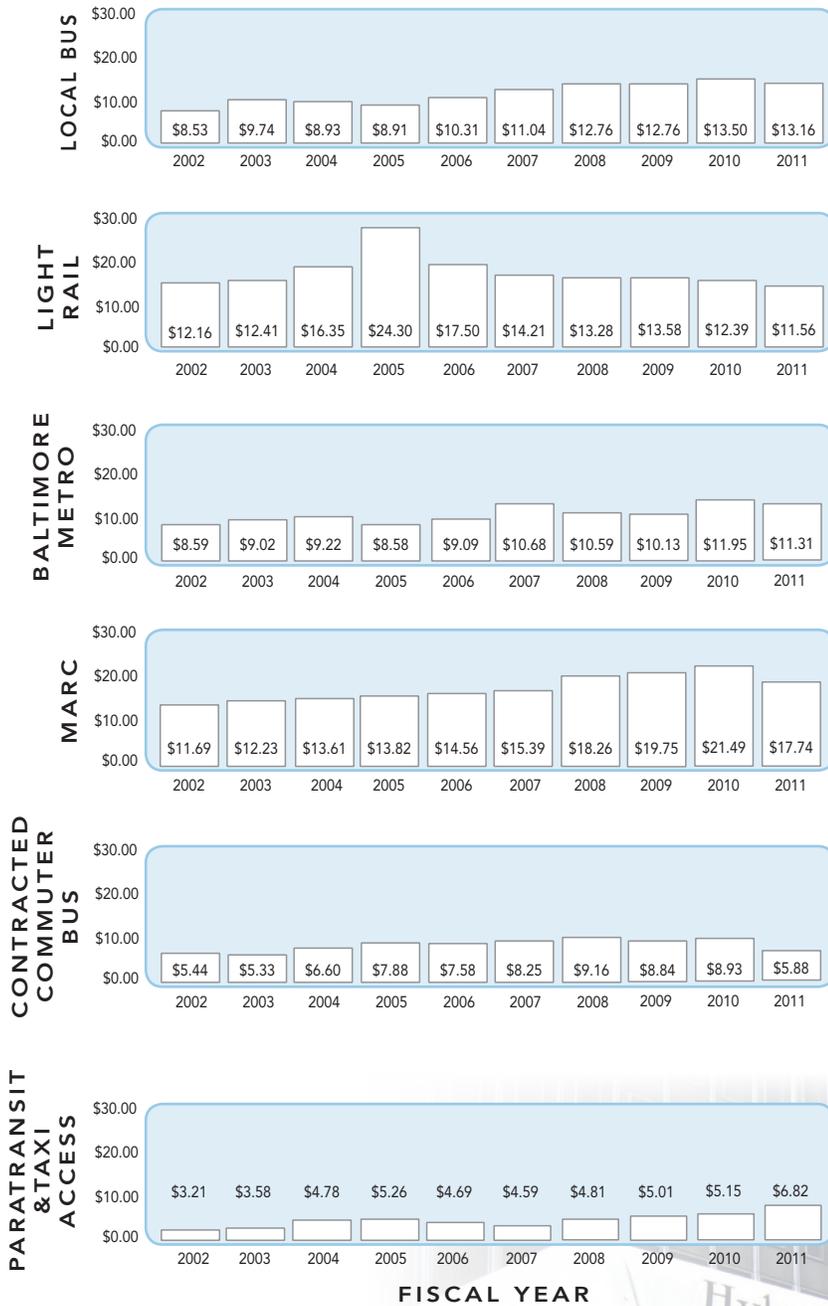
## What Are Future Performance Strategies?

- A two-fold strategy includes continuing to look for cost reduction initiatives and maximizing schedules that provide service where needed and reduce or eliminate service where there is low utilization
- Optimize preventative maintenance practices to reduce road calls and repairs
- Better manage overtime and contracted transit costs
- Increase ridership through Commuter Choice Maryland, MTA College Pass, Maryland Transit Pass, and the Guaranteed Ride Home Program
- Build or lease additional park-and-ride spaces where parking is at capacity



# MTA: Operating Cost Per Revenue Vehicle Mile

COST PER REVENUE VEHICLE MILE (2011 Dollars)



**TARGET:** Cost per passenger for Local Bus, Baltimore Metro, and Light Rail to increase at a rate no higher than the Consumer Price Index (CPI)\*

\* The CPI provides information about price changes in the national economy over time. MTA uses the CPI to better understand general prices relative to the cost of providing certain MTA goods and services.

## Why Did Performance Change?

- In FY2011 operating cost per revenue vehicle mile decreased compared to FY2010 due to higher costs in 2010 associated with union arbitration settlements

## What Are Future Performance Strategies?

- MTA continues to modify schedules to provide service based on need and to reduce or eliminate service on lower-utilized routes
- Manage overtime spending and continue to invest in more efficient rail and bus fleets
- Continue to purchase fuel and other commodities on contract at the lowest available prices
- Renegotiate service contracts, as applicable, to help deliver excellent service in a cost-effective manner



## MVA: MVA Cost Per Transaction\*

Cost per transaction is an indication of whether MVA business practices and programs are increasingly cost-effective through the employment of better technology and operational practices.



\* Includes all transactions (e.g., licensing, registration, titling).

\*\*The cost per transaction data is adjusted for inflation.

### Why Did Performance Change?

- MVA provides services for other agencies (e.g., central collection unit, E-ZPass® sales, organ donor program, child support enforcement, insurance enforcement, voter registration, warrants, and flags)
- Increase in information technology investments and facility infrastructure
- Decline in the number of branch transactions due in part to Vehicle Emissions Inspection Program (VEIP) changes
- VEIP is now fully operational with the cost per transaction reduced to just over \$13
- Completed a Long Range Plan that highlights visions and goals for a future MVA that is more customer-oriented, efficient, and technically advanced to meet the needs of MVA customers

### What Are Future Performance Strategies?

- Implement a new Strategic Business Plan, which highlights measures for attaining process efficiencies and managing costs



### Why Did Performance Change?

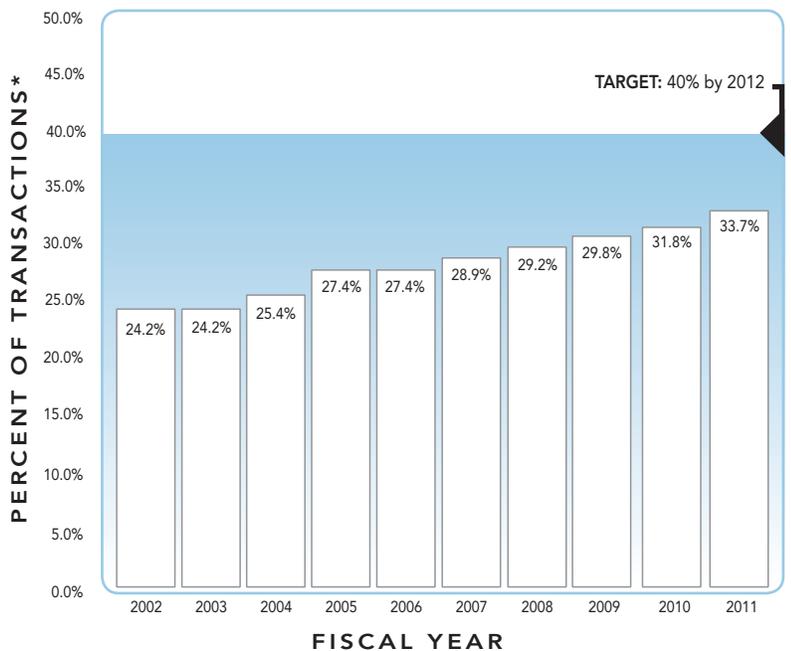
- Developed and began implementing a web-enabling plan to progressively add services over the Internet
- Implemented a new registration renewal policy that mandates that all registration renewals (with a few categorical exceptions) are required to be completed by an alternative method (online, mail-in, kiosk, etc.)
- The new registration renewal policy caused for alternative service delivery to increase from 69% to 78.8% of overall registration renewals in FY2011
- Increased focus on use of the Electronic Registration and Titling (ERT) system by auto dealers (increased the percent of new titles issued electronically from 48.4% in FY2010 to 52.3% in FY2011)
- Continued to offer alternative service delivery options including: mail-in, ERT, Mobile Service Center, electronic services (Internet, Interactive Voice Response (IVR), kiosk), Call Center, and the County Treasurer's office

### What Are Future Performance Strategies?

- Continue to proactively plan and systematically enhance services and products provided through alternative methods such as the Internet, kiosk, mail, and IVR system
- Promote alternative service delivery options through public awareness campaigns
- Continue work which will provide for online identification card renewals in FY2012
- Implementation of key initiatives in the MVA Alternative Service Delivery Plan continued until key milestones are accomplished

## MVA: Alternative Service Delivery Transactions as Percent of Total Transactions

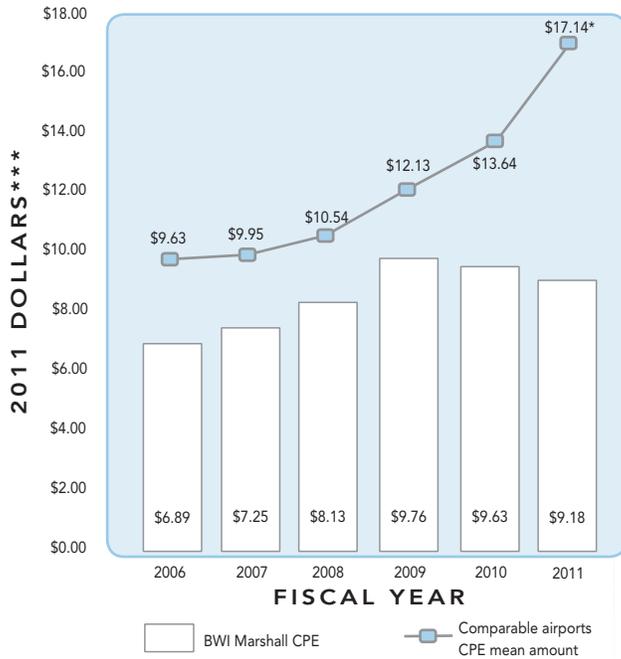
Alternative services offer the ability to provide fast and convenient service delivery to the MVA customer. These transactions do not involve a walk-in interaction and require development of new information technology systems and changes in customer behavior, which may be offset by new legislation and programs that require a walk-in transaction.



\*The number of transactions includes the number of vehicles tested at VEIP stations, and excludes driver and vehicle Direct Access Records (DARS).

## MAA: Airline Cost Per Enplaned Passenger (CPE)

Airline cost and non-airline revenue measures allow BWI Marshall to remain competitive in a region that is unique because it has four proximate airports.



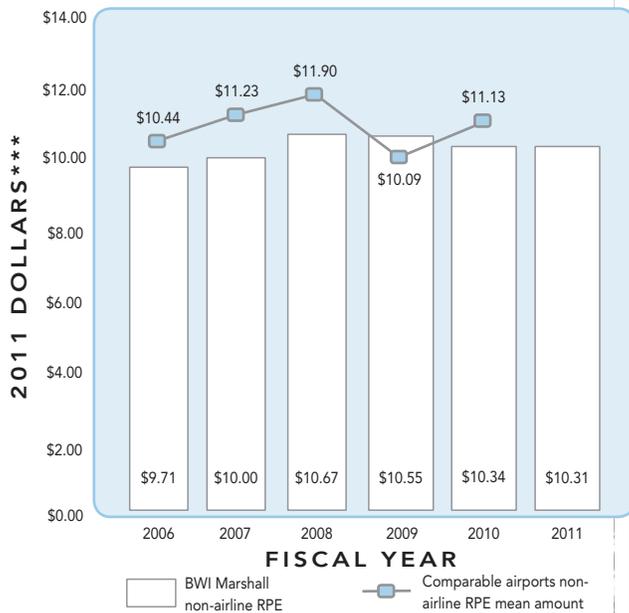
**TARGET:** BWI Marshall CPE below the mean CPE of comparable airports\*\*

\* 2011 comparable airports CPE mean amount is preliminary.

\*\* Comparable airports are defined as Washington Reagan National, Washington Dulles International, and Philadelphia International.

\*\*\* The cost per passenger data is adjusted for inflation.

## MAA: Non-Airline Revenue Per Enplaned Passenger (RPE)\*



**TARGET:** BWI Marshall non-airline RPE to be at or above the mean of comparable airports\*\*

\* RPE is based on non-airline revenue (e.g., parking, concessions, and ground transportation).

\*\* Comparable airports are defined as Washington Reagan National, Washington Dulles International, and Philadelphia International.

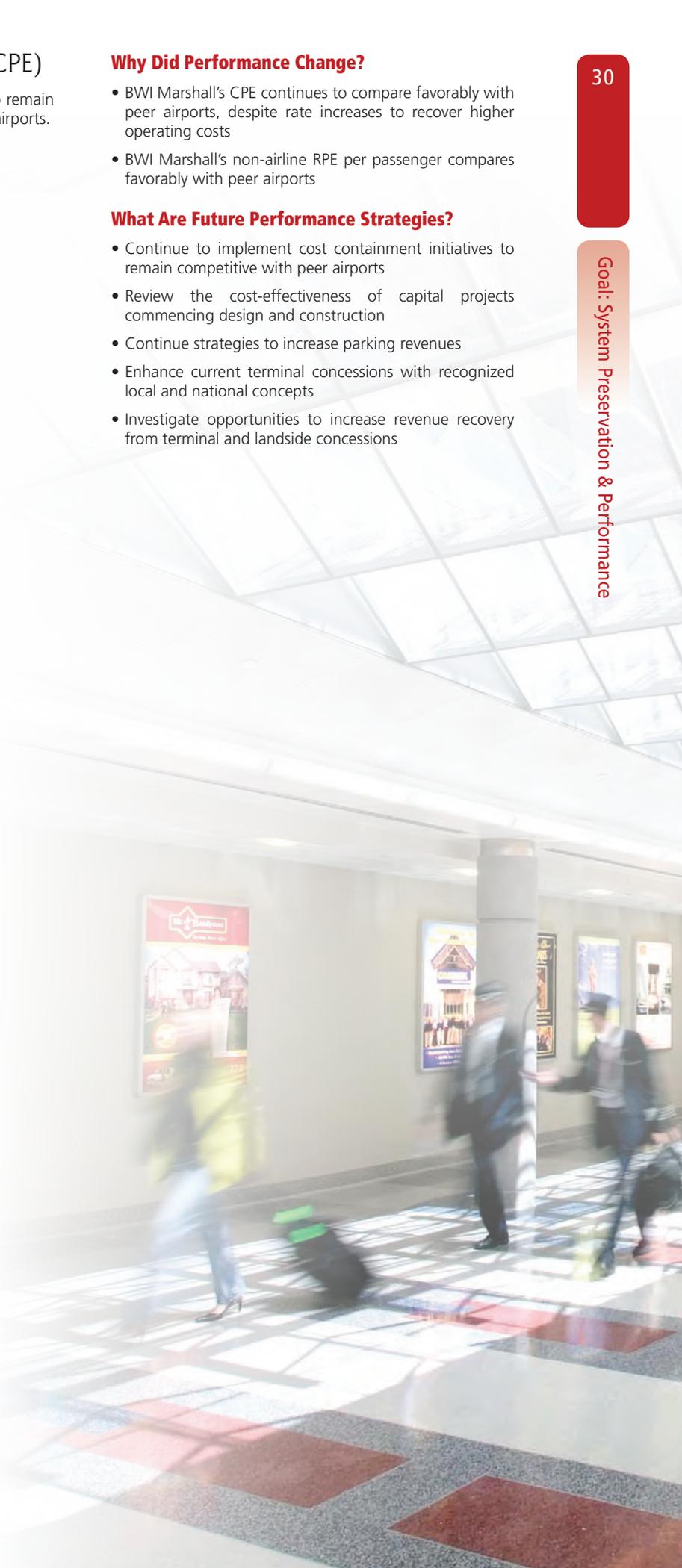
\*\*\* The cost per transaction data is adjusted for inflation.

## Why Did Performance Change?

- BWI Marshall's CPE continues to compare favorably with peer airports, despite rate increases to recover higher operating costs
- BWI Marshall's non-airline RPE per passenger compares favorably with peer airports

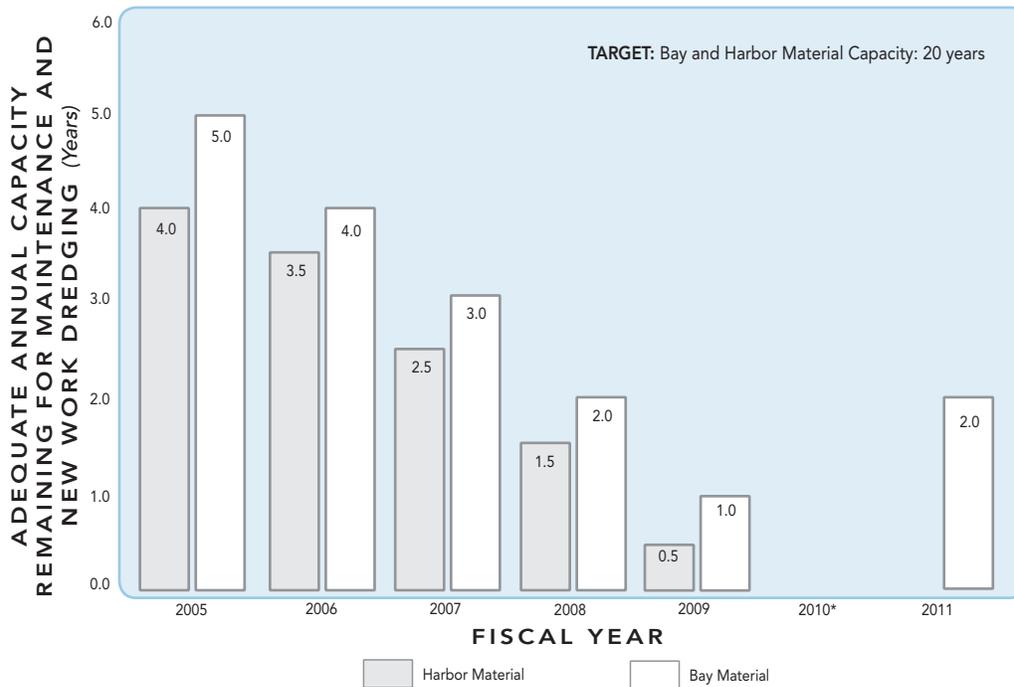
## What Are Future Performance Strategies?

- Continue to implement cost containment initiatives to remain competitive with peer airports
- Review the cost-effectiveness of capital projects commencing design and construction
- Continue strategies to increase parking revenues
- Enhance current terminal concessions with recognized local and national concepts
- Investigate opportunities to increase revenue recovery from terminal and landside concessions



## MPA: Adequate Dredge Material Placement Capacity Remaining for Harbor and Bay Maintenance and New Work Dredging

MPA is responsible for obtaining dredged material placement sites.



\*Adequate capacity did not exist for routine maintenance and new projects without overloading placement.

### Why Did Performance Change?

- Capacity at placement sites is being consumed faster than new capacity can be brought online. In 2011, only maintenance dredging of Harbor channels can be accommodated without overloading existing placement sites. New dredging work for channel improvement in the Harbor is not being considered at this time
- On average, there is 1.0 million cubic yards (mcy)/year of Harbor maintenance dredging and 0.5 mcy/year of new work dredging in the Harbor to make improvements to the channel system
- Supported Maryland's Dredged Material Management Program and the U.S. Army Corps of Engineers' Mid-Chesapeake Bay Island feasibility studies
- Maintained efforts to ensure deep channel access to the Port

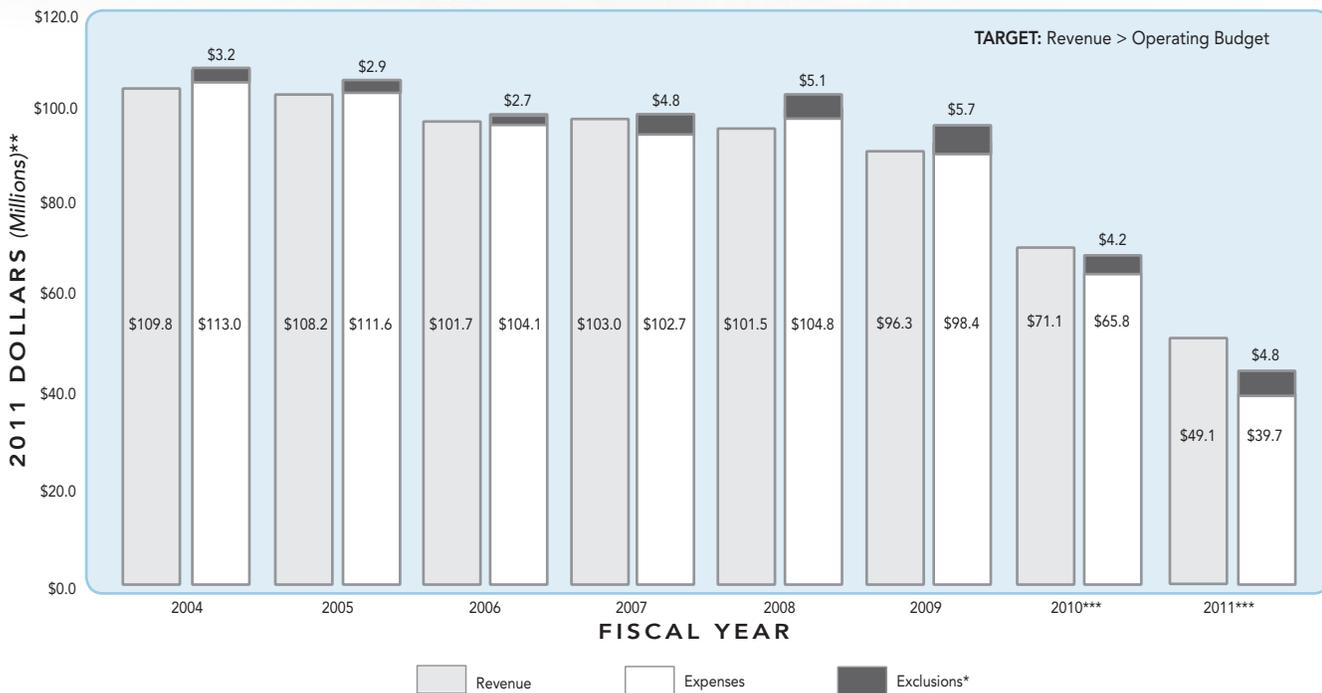
### What Are Future Performance Strategies?

- Continue with strategic communication plan for dredge material placement process, and public communication of actions leading to prioritization and ultimate recommendation for construction of placement sites and options
- Assist, where possible, to reactivate placement sites at Courthouse Point and Peace Creek to provide additional capacity
- Monitor sediment brought into the upper Chesapeake Bay as a result of tropical storms Irene and Lee during late summer 2011
- Evaluate innovative reuse of dredge material
- Work with the Corps of Engineers and elected officials to ensure the Chesapeake & Delaware (C&D) Canal is properly maintained to the authorized depth
- The FY2012-FY2017 CTP includes \$305.7 million to implement the Governor's Strategic Plan for Dredge Material Management, which will help maintain shipping channels



## MPA: Revenue Versus Operating Expense

Revenues are an important measure of business activity at the MPA terminals. MPA's operating expenses are recovered by revenues generated.



\* Exclusions include: MDTA lease payments for Masonville terminal, Certificate of Participation (COPs) for M-real facility, and MPA operating costs for new/replacement equipment.

\*\* The revenue and operating data is adjusted for inflation.

\*\*\*FY2010 and FY2011 revenue and expense data reflect the impact of finalized public-private partnerships at the Port.

### Why Did Performance Change?

- The MPA doubled its net operating profit of \$9.4 million for FY2011 compared to FY2010
- MPA's cargo tonnage exceeded prior fiscal year volumes, as well as budgeted expectations
- The MPA won four MarCom (Association of Marketing and Communications Professionals) awards in a national competition that included private sector businesses, ad agencies, and PR firms
- Cruise ship passengers continue to increase in Baltimore, setting a record 210,549 people sailing on 90 cruises from the Port of Baltimore in 2010 (exceeding 2009's record of 167,235 passengers on 81 sailings)
- A public-private partnership with Ports America Chesapeake was named by *Infrastructure Investor* magazine as North American Infrastructure Deal of the Year
- The MPA won awards for its cargo and cruise websites, and for its *Port of Baltimore* magazine in the 2011 American Association of Port Authorities Communications Awards
- MPA successfully controlled operating expenditures and maximized revenues throughout FY2011

### What Are Future Performance Strategies?

- Attract and retain sufficient cargo volumes to provide future revenue growth
- Continue to improve MPA financial systems and reporting techniques
- Maintain efficient and effective contract management and internal project delivery
- Continue efforts to increase World Trade Center occupancy

# Environmental Stewardship

## Objectives

- 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

## Performance Measures

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MDOT	Transportation-related emissions by region	36
MDOT	Transportation-related greenhouse gas emissions	36
MDOT & MTA	Transportation Emission Reduction Measures (TERMs)	38
MPA	Acres of wetlands or wildlife habitat created, restored, or improved since 2000	37
MVA	Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program (VEIP) versus customer wait time	35
SHA	Acres of wetlands restored and miles of streams restored	34
SHA	Total fuel usage of the light fleet	35
SHA & MTA	Travel Demand Management	37

## Key Initiatives

- MDOT:**
- *Smart, Green & Growing:* Implement Bikeways Program to facilitate bicycling as a transportation option in support of statewide *Smart, Green & Growing* initiative to strengthen the economy, protect the environment, and improve Marylanders' quality of life by facilitating bicycling as a transportation option.
  - *Protect the Bay:* Manage stormwater runoff from MDOT infrastructure to help meet the Chesapeake Bay pollution budget.
  - *Lower Emissions:* Continue procuring lower-emissions vehicles for transit and agency fleets (buses and light duty vehicles) and promoting the adoption of less-carbon intensive fuels. Participate in multi-state discussions on implementation of a regional Low-Carbon Fuel Standard and coordinating with Maryland Energy Administration (MEA) and the Baltimore-Washington Electric Vehicle Initiative (BEVI) on the location for electric vehicle charging locations at park-and-ride lots.
- MAA:**
- *Recycle:* Continue to recycle at least 20% of BWI Marshall's solid waste.
  - *Energy Efficiency:* Implement an Energy Efficiency Program for BWI Marshall and Martin State Airport, including comprehensive lighting improvements and substantial energy infrastructure replacement projects.
  - *Alternative Energy:* Installed a 505 kilowatt solar photovoltaic (PV) system on top of the BWI Marshall daily parking garage.
- MPA:**
- *Greening Schools:* Fund mitigation projects that reduce impervious surface and beautify Baltimore City schools by replacing old paving with grass.
  - *Environmental Research:* Continue to support the University of Maryland's Maritime Environmental Research Center (MERC), which will evaluate and certify the effectiveness of ballast water treatment technologies.
  - *Dredged Material Reuse:* Continue evaluating innovative reuses of dredged material to reduce future reliance on dredged material placement facilities, including building materials, restoration of eroding islands, and the development of upland and wetland habitats in the Chesapeake Bay.
  - *Environmental Remediation:* Actively manage human health and safety issues relating to Chrome Ore Processing Residue (COPR) at the Dundalk and Hawkins Point Marine Terminals.
- MTA:**
- *Air Quality:* Replace 26 diesel Maryland Area Rail Commuter (MARC) Train locomotives with new models that meet stringent new pollutant requirements.
  - *Fuel Savings:* Specify that all bus orders will include hybrid electric cooling systems, which provide a 9% fuel savings. All 100 buses in the year 2009 fleet were equipped with this system, and 91 older buses have been retrofitted to date.
  - *Fuel Savings:* All new buses being procured are diesel-electric hybrids which improve fuel economy.
  - *Bike Friendly:* MTA encourages bicycling by allowing bikes on Baltimore Metro and Light Rail, and by installing front-mounted bike racks on all Local Buses.
- MDTA:**
- *Environmental Management:* Developed and implemented an Environmental Management System.
  - *Alternative Fuels:* Increase the use of alternative fuels throughout MDTA vehicle fleet.
  - *Recycle:* Promote, enhance and expand the existing MDTA-wide recycling program, and identify additional materials for recycling.
  - *Water Quality:* Continue to develop a Water Quality Strategy to address Environment Protection Agency (EPA) Bay Restoration goals, and continue to develop partnerships with government agencies, watershed groups, private entities, and academia in storm water solutions.



- MVA:**
- Environmental Management: Develop and implement a Compliance Focused Environmental Management System (CFEMS) to better incorporate environmental considerations into business practices (by 2016).
  - Reduce Energy Use: Continue to explore innovative ideas for energy management and reduction, based on a recent energy audit.
  - Air Quality: Continue enhancing the provision of Internet-based services to avoid unnecessary vehicle trips.
- SHA:**
- Climate Change: Develop SHA's draft adaptation plan/risk policy into a Climate Action Plan, continue to track vulnerable transportation assets and climate adaptation measures, and identify opportunities to address climate change in project development.
  - Stormwater Management: Develop a draft plan for SHA pollutant load reductions to achieve Chesapeake Bay Total Maximum Daily Load goals and to safeguard water quality.
  - Vegetation Management: Continue to expand and enhance the "Mowing for Meadows" program, which has reduced mowing costs by over \$1 million each year and avoided significant emissions from mowing equipment and pollutant runoff.

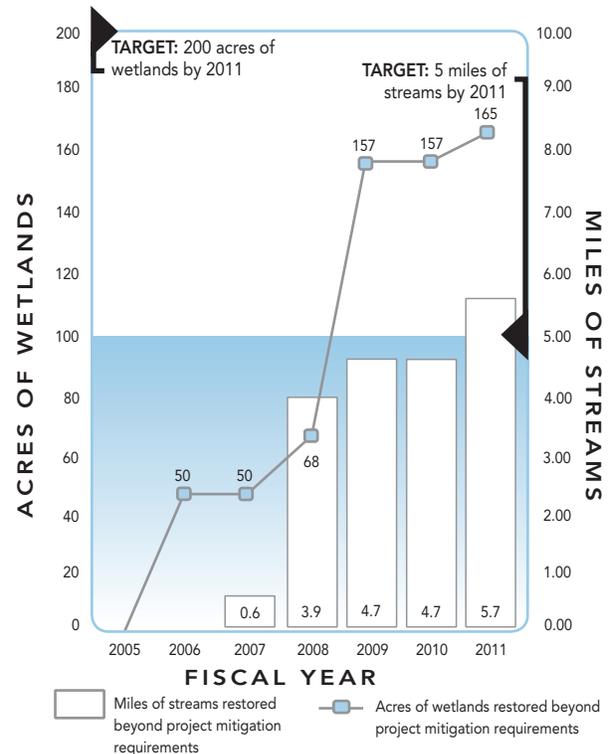
Stewardship of our environment can take a variety of forms in the transportation context, including deploying hybrid buses, promoting transit and carpooling, responsibly managing stormwater, restoring streams and wetlands, supporting compact and transit-accessible development, and reducing greenhouse gas (GHG) and pollutant emissions. Maryland's transportation agencies implement internal operation practices, as well as prioritize investments that support these forms of stewardship while keeping our people and our economy moving.

Recognizing that transportation is an important piece of sustainability MDOT is an implementation partner in Governor O'Malley's *Smart, Green & Growing* initiative, which guides the conversation about our collective environmental future, leading to more informed decision making and more effective action. MDOT plays an important role in shaping and implementing many of *Smart, Green & Growing* key initiatives, from promoting more compact development, to enhancing transit and bike and pedestrian facilities, restoring the Chesapeake Bay, and mitigating GHG emissions. MDOT also plays a key role in the state's mitigation of GHG emissions and response to the threats of global climate change in developing the Maryland Climate Action Plan.

MDOT actively promotes the Transportation-Oriented Development (TOD) initiative by identifying stations where higher density development is appropriate. MDOT is working with private partners to make these transit area sites, primarily in the Baltimore-Washington corridor, more transit and pedestrian friendly with mixed-use development, where people can live, work, and play. In 2010, Governor O'Malley designated 14 sites across the state to focus attention on TOD. Currently there are six locations where development activities are underway, including the Owings Mill TOD site, which prepared for its first commercial tenants in 2011. MPA and MAA have introduced programs and projects aimed at achieving full compliance with environmental regulations and conserving resources. For example, MAA is implementing an Energy Efficiency Program that includes installation of a solar PV system at BWI Marshall. MTA, SHA, and MDTA have spearheaded programs to achieve GHG reductions through upgrading their vehicle fleets and implementing energy conservation operation practices at their facilities. These actions are supported by MVA's Vehicle Emissions Inspection Program (VEIP), which conducts regular vehicle emissions inspections and educates Marylanders on maintaining our vehicles for clean air, public health, and improved water quality in the Chesapeake Bay.

## SHA: Acres of Wetlands Restored and Miles of Streams Restored

SHA's wetland and stream restoration activities have exceeded regulatory requirements. These wetland and stream restoration activities help compensate for prior damage to these sensitive ecosystems, caused in part by roadway construction. Wetland and stream restoration is also a key stormwater runoff management strategy, helping to improve the water quality of our rivers, lakes, and bays without the installation of costly treatment infrastructure.



### Why Did Performance Change?

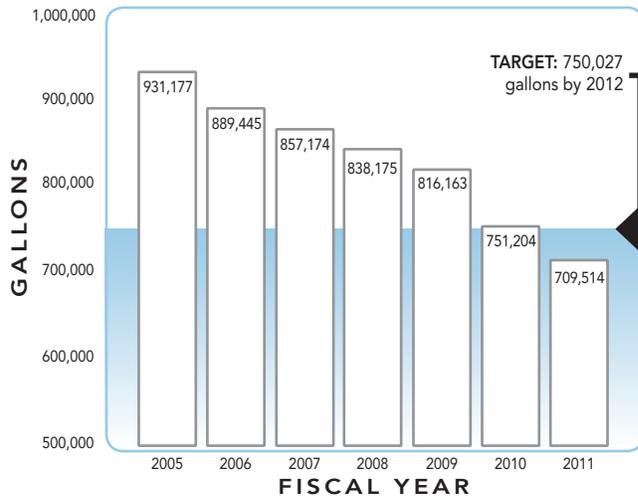
- Added almost one mile of stream restoration in FY2011, meeting the goal of five miles, with 5.7 total miles restored by the close of FY2011
- Added 8.4 acres of restored wetlands in FY2011. More aggressive gains were delayed by challenges to identifying, designing, and permitting new replacement sites
- SHA continued to focus on providing environmental enhancements above and beyond requirements

### What Are Future Performance Strategies?

- Complete the final 34.6 wetland acres of wetland creation, thereby meeting the aggregate goal of 200 acres restored by the end of FY2012
- \$55.1 million has been identified by SHA in the FY2012–FY2017 CTP toward restoration of the Chesapeake Bay and compliance with Total Maximum Daily Load standards — as a result no new wetlands or stream stewardship projects are anticipated
- Continue to partner with sister State agencies to provide enhancements to the natural environment through cost-effective solutions

## SHA: Total Fuel Usage of the Light Fleet

This measure is tracked statewide to monitor success in reducing consumption of gasoline through conservation strategies, including use of higher fuel efficiency vehicles for scheduled fleet replacements.



### Why Did Performance Change?

- Continued procuring more fuel-efficient, light-duty equipment for scheduled fleet replacements
- Maintained use of videoconferencing to reduce auto trips for in-person meetings
- Continued to enforce an automobile engine-idling policy for all employees and consultants
- Employees are taking proactive measures to save fuel, such as carpooling for state business trips

### What Are Future Performance Strategies?

- Continue to acquire smaller, more fuel-efficient vehicles and hybrids as older vehicles qualify for replacement; 20% of new purchases in FY2012 will be flex-fuel vehicles
- Seek a 10% increase in E85 fuel use for FY2012 as part of a broader, ongoing initiative to expand the state's E85 fueling infrastructure and make E85 a more cost-effective alternative
- Continue replacing certain classifications of light-duty diesel vehicles to gasoline, which attains a higher tier of emission regulations and yields fewer GHG emissions

### Why Did Performance Change?

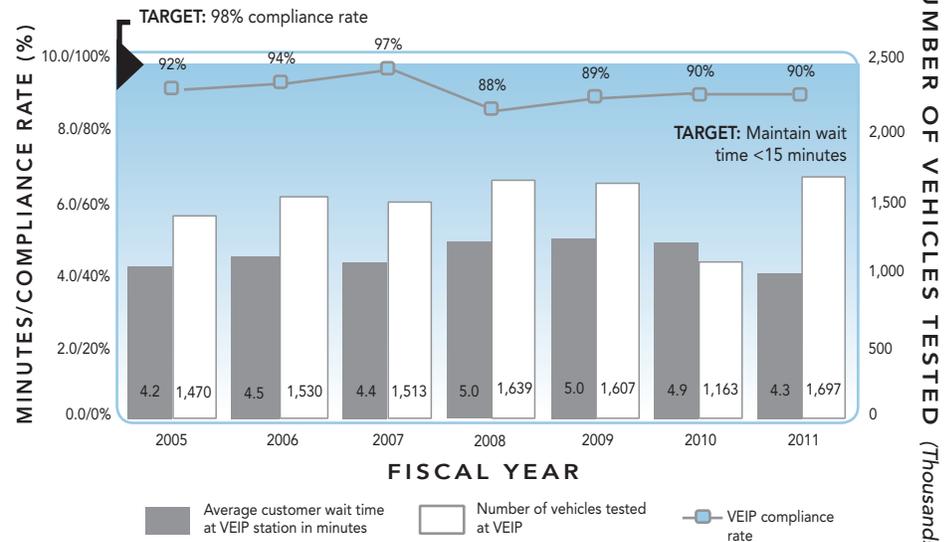
- In FY2011, customers waited an average of only 4.3 minutes, well below the MVA's target threshold of 15 minutes
- Vehicle inspections increased by 534,026 in FY2011 (45% above 2010 levels), primarily due to a period in FY2010 in which inspections were temporarily limited
- Although MVA's activities do not impact the vehicle compliance rate, 90% of tested vehicles met emissions standards in FY2011, which is identical to the compliance rate in FY2010

### What Are Future Performance Strategies?

- Monitor wait times and implement new technologies and initiatives, if warranted, to limit wait times at inspection stations
- Continue monitoring registered vehicles in eligible (non-attainment) counties to ensure testing compliance
- Continue to develop strategies, policies, and regulations in collaboration with the Maryland Department of the Environment to ensure compliance with state emissions testing mandates

## MVA: Compliance Rate and Number of Vehicles Tested for Vehicle Emissions Inspection Program (VEIP) Versus Customer Wait Time\*

Monitoring the VEIP testing compliance rate ensures system effectiveness and identifies vehicles exceeding allowable standards. Tracking the average wait time at VEIP stations ensures that the 15-minute average wait time requirement is met. Timely and efficient customer service helps the state meet Federal clean air standards by identifying polluting vehicles and encouraging regular vehicle maintenance.



\* 14 counties offer VEIP tests: Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard, Queen Anne's, Cecil, Washington, Calvert, Charles, Frederick, Montgomery, and Prince George's.



Highway congestion on I-495, circa 2009

## MDOT: Transportation-Related Greenhouse Gas Emissions\*

A reduction in overall Vehicle Miles of Travel (VMT) is one of several strategies that MDOT is pursuing to address climate change through reduction of GHG. Reducing VMT has other potential benefits to Marylanders, such as reduced congestion and improved travel time reliability. GHG emissions affect the temperature and climate of the earth's surface. GHG emissions primarily include carbon dioxide, methane, nitrous oxide, carbon monoxide, oxides of nitrogen, and non-methane volatile organic compounds.

### MDOT Climate Change Planning

MDOT and its modal agencies are continuing to refine GHG reduction strategies through development of the Maryland Climate Action Plan, as required by the Greenhouse Gas Reduction Act of 2009. These strategies are documented in the MDOT Draft 2012 Implementation Plan, released in April 2011, which includes the following findings:

- In 2006, GHG emissions from the transportation system in Maryland totaled 32.70 million metric tons (mmt)
- MDOT programs included in the FY2012-FY2017 CTP will achieve a 5.30 mmt reduction in GHG emissions by 2020
- Other transportation sector GHG-reduction strategies focusing on clean fuels and Federal fuel economy standards, including the new 2012-2016 CAFE standard, will result in 6.42 mmt of GHG reduction in on-road GHG emissions by 2020
- Using a 25% reduction from 2006 emissions as a target to measure progress of the transportation sector, the total 11.72 mmt GHG reduction from projected 2020 baseline emissions will achieve 68% of the goal

MDOT has also identified other feasible but unfunded GHG reductions strategies that could help the transportation sector meet the 25% reduction target by 2020.

In addition, SHA has established goals to identify vulnerable infrastructure and develop risk assessments for short- and long-term investments to protect coastal communities, environmental assets, and infrastructure from the potential impacts of climate change-induced storm surges and sea-level rise.

### What Are Future Performance Strategies?

- Continue to develop processes to include climate change considerations into project selection, design, maintenance, operations, construction, and emergency response
- Encourage growth in transit ridership through ongoing system enhancements, expansion, and outreach combined with continued support and implementation of TOD projects
- Promote mobile source emission reduction efforts including support of Transportation Demand Management (TDM) programs (MDOT continues to support ridesharing and commuter incentive programs in the FY2012-FY2017 CTP with \$24.6 million in dedicated funding)
- Continue to reduce GHG emissions from SHA's vehicle fleet by increasing usage of alternative fuels by 10% from FY2011 levels
- Continue MTA's green bus fleet expansion with ongoing with the addition of 12 new diesel/hybrid articulated buses in 2011 and the planned addition of 57 new hybrid buses in 2012 (the FY2012-FY2017 CTP identifies \$188.1 million in diesel/hybrid bus replacements over the next six years)
- Implement the Baltimore Regional Transportation Board (BRTB) and the Metropolitan Washington Council of Governments (MWCOC) Transportation Planning Board (TPB) 25-year long-range transportation plans, which meet Clean Air Act requirements confirming that the plan does not worsen the region's air quality or delay the attainment of Federal air quality standards
- MDOT is working with other states in the Mid-Atlantic and Northeast region through the Transportation and Climate Initiative to develop partnerships supporting implementation of a low-carbon fuels standard
- MDOT is a member of the Maryland Electric Vehicle Infrastructure Council formed in 2011 to formulate an action plan to successfully integrate electric vehicles into the state's transportation network. The Council will identify steps to establish a statewide charging infrastructure, a method for displaying the price for charging, and promotion of the use of clean energy sources for charging. The Council will also develop policies that support fleet purchases of electric vehicles

## MDOT: Transportation-Related Emissions by Region\*\*

Reducing vehicle emissions improves air quality in compliance with Federal regulations and provides health benefits for Maryland residents.

PERFORMANCE MEASURE	REGION	CALENDAR YEAR****			% CHANGE
		2002	2005	2008	2002-2008
Volatile Organic Compound (VOC) Tons per Day	Baltimore	73.8	52.2	44.5	-40%
	Washington***	66.6	47.8	40.5	-39%
Nitrogen Oxide (NOx) Tons per Day	Baltimore	185.3	145.3	97.1	-48%
	Washington***	114.6	106.6	78.5	-32%
Carbon Monoxide (CO) Tons per Day	Baltimore	970.0	699.2	514.7	-47%
	Washington***	845.2	628.1	454.2	-46%
Particulate Matter (PM) Tons per Day	Baltimore	1,061.9	936.3	623.4	-41%
	Washington***	791.4	699.2	503.6	-36%

\* GHG emissions calculated using EPA's MOVES2010a emissions model.

\*\* Emissions calculated using MOBILE 6.2 and HPMS data.

\*\*\* All Washington data represents Maryland's share of emissions in the MWCOC non-attainment area, which includes Washington DC, and parts of Maryland and Virginia.

\*\*\*\* New EPA emissions inventory data will not be available for CY2011 until mid-2012.

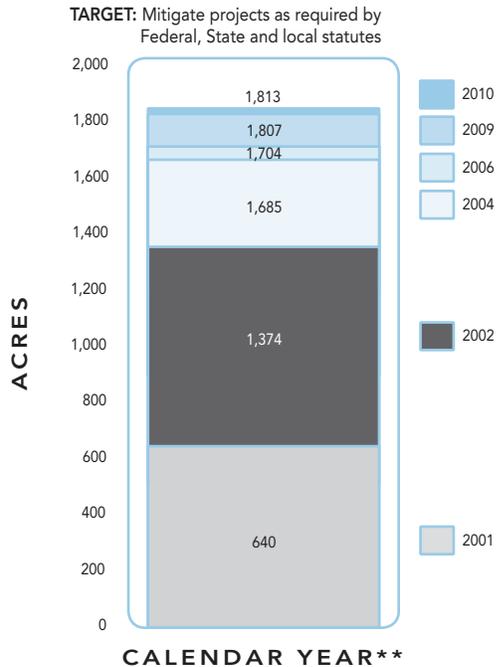


# NOW

There are over 44,000 park-and-ride spaces that facilitated removing 106 million VMT from Maryland roads in FY2011. To date, MDOT and its state partners have installed 21 electric vehicle charging stations at park-and-ride lots, MDOT Headquarters, and BWI Marshall parking garages

## MPA: Acres of Wetlands or Wildlife Habitat Created, Restored, or Improved Since 2000\*

MPA is in compliance with the various permits that are granted to construct projects needed for MPA customers (e.g., landside tenants or steamship lines).



\* Represents cumulative mitigation efforts by MPA.  
 \*\* New data not available for this chart in FY2011 per the performance bullet.

### Why Did Performance Change?

- Mitigation activities in FY2011 were directed toward schoolyard greening instead of undertaking new wildlife habitat improvements

### What Are Future Performance Strategies?

- Create and improve wildlife habitat to conform to permit requirements for construction projects requiring mitigation
- Continue Masonville eastern and peninsula uplands environmental improvement projects
- Continue efforts to restore the Hart-Miller Island North Cell and develop Poplar Island Expansion



## Travel Demand Management

Maryland's transportation agencies promote Travel Demand Management (TDM) strategies as a way to provide an incentive to single-occupancy drivers to use public transit, carpool, ride a bike, walk, or telecommute instead of driving alone. Other strategies involve flexible work hours as a way to shift trips to times when roadway capacity is less constrained, helping to avoid further exacerbating capacity shortfalls during rush hours. By cutting down on single-occupant vehicle trips and reducing peak period congestion, TDM contributes to reduced emissions and improved air quality. Maryland supports a wide variety of programs and projects to promote TDM, including Commuter Choice Maryland, Commuter Connections, the Telework Partnership, TOD, and statewide park-and-ride facilities. Park-and-ride facilities provide connections to transit, carpooling, and other shared modes, helping to lower single-occupancy driving.



## Statewide Park-and-Ride Facilities

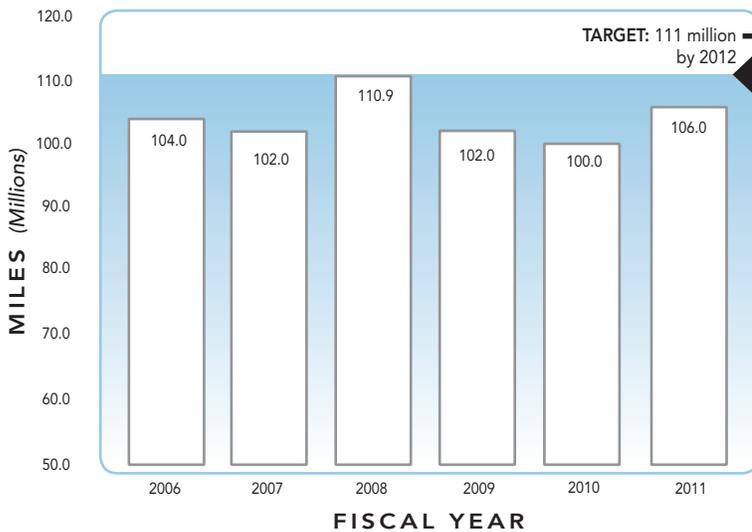
AGENCY	TOTAL SPACES	AVERAGE WEEKDAY UTILIZATION*
SHA (2010)	12,135	6,880
MTA Operated (2011)	32,214	19,691
Transit Multipurpose** (2011) (Estimated)	7,704	5,541

\* Facility usage fluctuates due to the economy; weather conditions; special events; emergencies; delays or shutdowns of parallel lines or modes; maintenance and repair; storage of plowed snow; increases in frequency, service, and capacity; and other factors.

\*\* Includes facilities operated by MTA, Amtrak, WMATA, Penn Station in Baltimore, and Union Station in Washington, D.C.

# SHA: Reduction in Vehicle Miles Traveled Through Park-and-Ride Usage

By offering park-and-ride facilities, SHA provides commuters with an alternative to driving to their destinations and helps increase public transit ridership.



## Why Did Performance Change?

- In 2011, SHA completed 193 additional spaces around the state
- Statewide, park-and-ride lots are at 59% capacity, which is slightly above the historical average (park-and-ride usage fluctuates in response to changes in gas prices)

## What Are Future Performance Strategies?

- In 2012, SHA will design and create 715 additional park-and-ride spaces around the state, of which 250 will be under construction in 2012 and the remaining spaces will be available for construction if funding can be identified
- Investigate how to bolster capacity at single deck parking structures at over-capacity park-and-ride facilities, without increasing stormwater runoff
- Continue to deploy Electric Vehicle (EV) charging posts at park-and-ride lots (as part of Maryland Energy Administration's Electric Vehicle Infrastructure Program (EVIP) in CY2010 and CY2011), 21 electric vehicle charging posts were deployed at various MDOT properties including BWI Marshall parking garages, MDOT Headquarters, and MTA and SHA park-and-ride lots in the Baltimore region
- Adapt park-and-ride lots along freight corridors to allow long-haul trucks to park overnight

2009-2010 MDOT & MTA TRANSPORTATION EMISSION REDUCTION MEASURES (TERMs)			
Program	Program Description	Daily Reduction in Vehicle Trips*	Daily Reduction in Vehicle Miles of Travel*
Guaranteed Ride Home	Provides transit users or carpoolers up to four rides home per year in a taxi or rental car in the event of an unexpected personal or family emergency	7,983	208,346
Employer Outreach (Including Employer Outreach for Bicycles)	Supports marketing efforts to increase employee awareness and use of alternatives to driving alone to work every day	90,350	1,657,809
Integrated Rideshare	Promotes other alternative transportation services to employers and to the general public. Commuter information system documentation is provided with comprehensive commute information, to include regional TDM software updates, transit, telework, park-and-ride, and interactive mapping	1,717	51,569
Commuter Operations and Ridesharing Center	Updates and maintains the Commuter Connections database for ride-matching services and provides information on carpooling, transit, Guaranteed Ride Home services, and alternative mode choices for the Baltimore/Washington metropolitan region	6,190	180,409
Telework Resource Center	Provides information to employers on the benefits of telecommuting and assists in setting up new or expanded telework programs for employers	12,499	241,834
Mass Marketing	Promotes and communicates the benefits of alternative commute methods to single-occupant vehicle commuters through the media and other wide-reach communications	6,922	78,297
MTA College Pass	Offers a subsidized monthly transit pass to full- or part-time students enrolled in greater Baltimore metropolitan area colleges or universities	4,544	35,897
MTA Commuter Choice Maryland Pass	Baltimore region program that allows employers to purchase transit passes and vouchers for their employees. Employers can subsidize these for their employees or allow employees to purchase passes or vouchers with pre-tax income	8,860	149,463
Transit Store in Baltimore	Provides customer access to transit information and for purchases of transit passes. Some 15-20% of total transit pass sales occur through this outlet	3,344	56,405

\* The impacts shown reflect the current definitions and most recent data available for each of the measures.

# Connectivity for Daily Life

## Objectives

- 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

## Performance Measures

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	Number of nonstop airline markets served	44
MPA	International cruises using the Port of Baltimore	46
MPA	Port of Baltimore foreign cargo and MPA general cargo tonnage	45
MTA	Annual revenue vehicle miles of service provided	42
MTA	Average weekday transit ridership	41
MVA	Percent of information system availability compared to total number of records maintained	44
SHA	Percentage of state-owned roadway directional miles within urban areas that have sidewalks and percent of sidewalks that meet Americans with Disabilities Act (ADA) compliance	43
SHA	Percentage of state-owned roadway directional miles with a bicycle level of comfort (BLOC) grade "D" or better and mileage of SHA-owned highways with marked bike lanes	43
SHA & MDTA	Percent of freeway lane-miles and arterial lane-miles with average annual volumes at or above congested levels	40

## Key Initiatives

- MDOT:** Advance the City of Aberdeen Transit-Oriented Development (TOD) Master Plan to encourage redevelopment, increased transit use, and multimodal transportation opportunities in Aberdeen. Continue to work with CSX and other partners on planning for a new freight rail to truck distribution center (the Baltimore-Washington Rail Intermodal Facility) in central Maryland.
- MAA:** Focus marketing campaigns to passengers and the business community on the advantages and convenience of using BWI Marshall, and continue to meet with air carriers to promote air service opportunities from BWI Marshall.
- MPA:** Generate new business opportunities with shippers through the Panama Canal between Asia and the Port of Baltimore, and make incremental improvements to the Cruise Maryland terminal.
- MTA:** Provide Baltimore rapid transit commuters with a convenient and affordable east-west transit connection with the development of the Red Line, a New Starts project.
- MDTA:** Following the 2011 opening of the first section of the Intercounty Connector (ICC)/MD 200, continue to make business preparations for operating and maintaining the fully complete ICC/MD 200, Maryland's first all-electronic, variably-priced toll facility
- MVA:** Through joint collaboration and partnerships, the MVA will continue to strive to meet the needs of external entities, both government and non-government, by supporting critical programs such as Child Support Enforcement, Arrest Warrants, Courts Point System, Board of Elections, Organ Donor, and Chesapeake Bay and Agriculture Programs.
- SHA:** Continue to apply for federal discretionary funds, supporting projects that make communities more livable and connected, such as bridge replacements, bike/pedestrian paths, and highway revitalization. Maryland received funding for 12 highway-related efforts, totaling \$5.4 million in 2011.

Maryland's integrated, multimodal transportation system provides efficient and seamless connectivity for people and goods between local, regional, national, and international economies. For Maryland residents and visitors, the State's transportation agencies cooperatively provide a broad and interconnected set of options to address needs for all travelers. Short trips within a community are served by local streets, sidewalks and bicycle lanes, and bus and rail transit services. Longer regional trips, many of which are commute to work trips in Maryland, are served by highways, tollways, Commuter Bus, and Maryland Area Rail Commuter (MARC). Regional and national destinations are accessible via six Amtrak rail stations in Maryland, and national and international destinations are accessible from over 300 nonstop flights that occur on an average day from BWI Marshall. The Port of Baltimore supports cruise ships, giving Maryland residents a local point of embarkation, and provides an economic benefit to Maryland through tourism and goods movement.

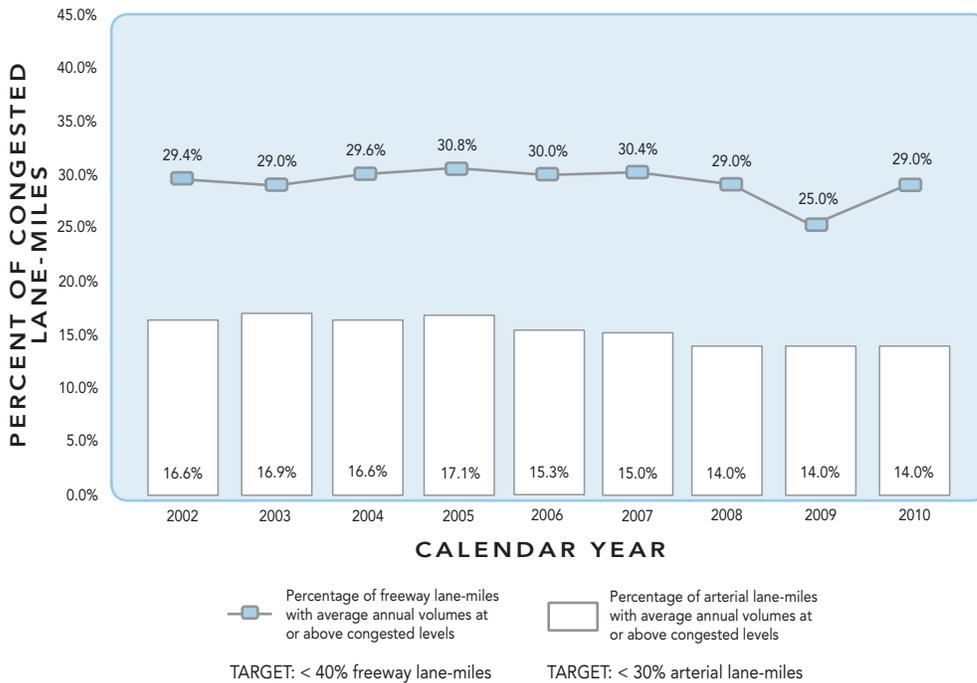
MDOT supports efficient transportation linkages to encourage economic growth through the implementation of projects to improve truck and rail freight movement. For example, the CSX Transportation National Gateway initiative will result in the implementation of a new inland distribution center in Maryland and freight rail improvement projects. These projects will provide improved capacity for freight movement, helping to attract businesses to Maryland.

Strategies for improving biking and walking connections to transit, work, schools, shopping, and other destinations is a key element of MDOT's Maryland Trails: A Greener Way to Go Plan and Bicycle and Pedestrian Access Plan. The FY2012–FY2017 CTP directs \$10.4 million to projects that develop better pedestrian links to transit, as well as a new \$10 million Bikeways Program that supports projects to fill missing links in the statewide trails and bikeways network. Improved roadway connectivity includes building efficient and linked traffic signal systems and expanding the deployment of *E-ZPass*® on toll roads. Improved regional and local transit connections are designed to increase Marylanders' accessibility to transit services, while also accommodating future growth, including Base Realignment and Closure (BRAC) population and employment growth.



## SHA & MDTA: Percent of Freeway Lane-Miles and Arterial Lane-Miles with Average Annual Volumes at or Above Congested Levels

Vehicles per lane per day volumes provide insight into whether congestion is improving or worsening across the state. Given Maryland's growing economic vitality, the anticipated increase in vehicle miles traveled and the growing size of the driving population, MDOT is focusing its efforts where it can be most effective, which is to slow the pace of congestion growth and set targets accordingly.

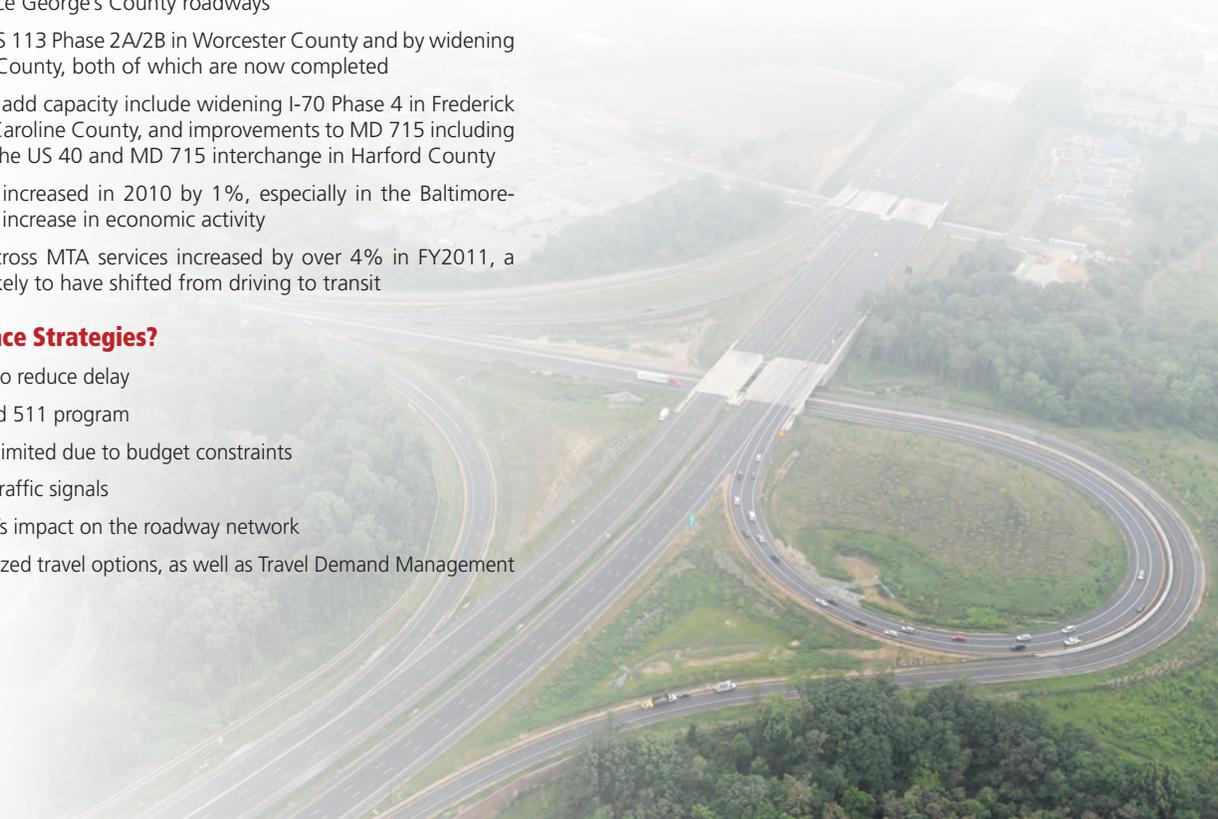


### Why Did Performance Change?

- The Coordinated Highways Action Response Team (CHART) helped reduce delay by an estimated 41.65 million vehicle-hours in 2010
- Retimed 330 signals, resulting in 630,000 hours of travel time saved
- Opened the first seven-mile segment of the ICC/MD 200 in February 2011 and the second section (11-miles) in November 2011, providing congestion relief on Montgomery County and Prince George's County roadways
- Added capacity by widening US 113 Phase 2A/2B in Worcester County and by widening I-70 Phase 2B/2C in Frederick County, both of which are now completed
- Projects under construction to add capacity include widening I-70 Phase 4 in Frederick County, widening MD 404 in Caroline County, and improvements to MD 715 including operational improvements at the US 40 and MD 715 interchange in Harford County
- Vehicle Miles of Travel (VMT) increased in 2010 by 1%, especially in the Baltimore-Washington region, due to an increase in economic activity
- Average weekday ridership across MTA services increased by over 4% in FY2011, a portion of those riders were likely to have shifted from driving to transit

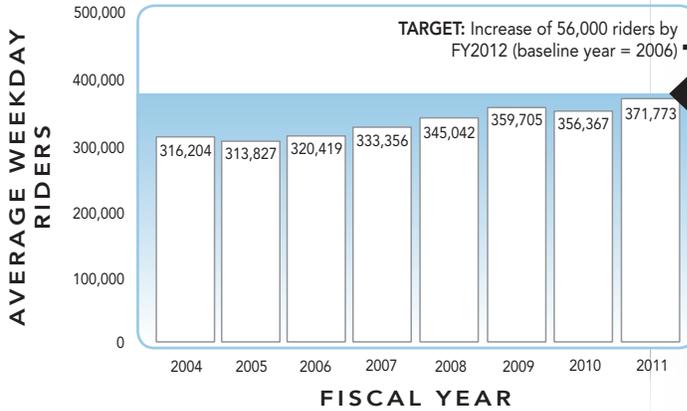
### What Are Future Performance Strategies?

- Continue the CHART program to reduce delay
- Monitor the newly-implemented 511 program
- Capacity improvements will be limited due to budget constraints
- Focus resources on optimizing traffic signals
- Identify and incorporate freight's impact on the roadway network
- Enhance transit and non-motorized travel options, as well as Travel Demand Management (TDM) programs



## MTA: Average Weekday Transit Ridership

Weekday transit usage demonstrates progress toward better mobility for our customers and contributes to statewide goals.



### Why Did Performance Change?

- Average weekday ridership in FY2011 was 4% higher than FY2010. This represents the highest average weekday ridership on the MTA system since tracking this measure started in the 2002 Attainment Report

### What Are Future Performance Strategies?

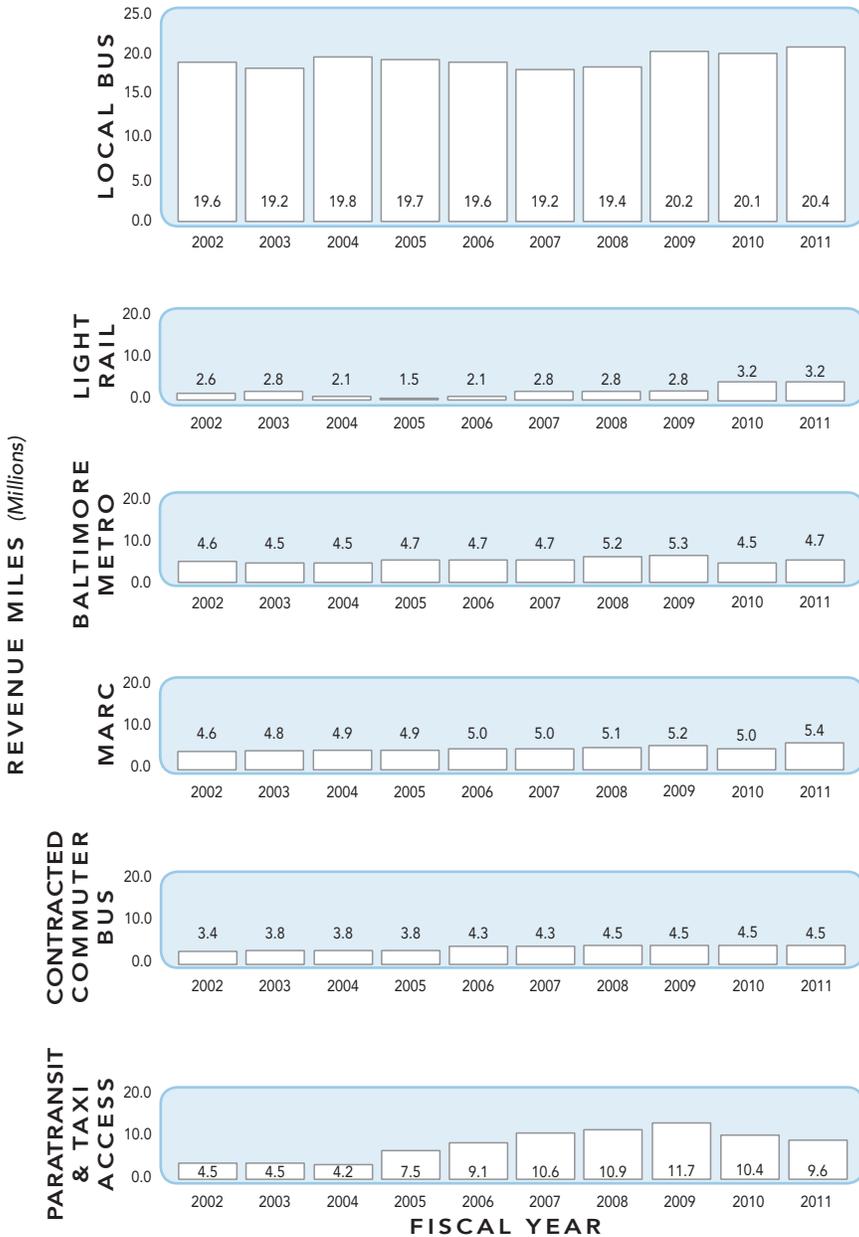
- Continue to seek scheduling efficiencies for Local Bus services
- Continue to increase capacity on MARC by adding cars and locomotives and overhauling current fleets
- Continue to investigate and implement more parking options for Commuter Bus (in the FY2012-FY2017 CTP, \$26.4 million in funding is programmed to expand parking in Waldorf, Charlotte Hall, and Dunkirk as part of the Southern Maryland Commuter Bus Initiative)
- Reduce system failures and improve reliability
- Implement a real-time passenger information system



Roadway traffic congestion in Downtown Baltimore, circa 2011

# MTA: Annual Revenue Vehicle Miles of Service Provided\*

Revenue vehicle miles, or each mile for which a transit vehicle is in service and accepting customers, indicates the level of transit service available to, and in use by, the general public.



\* Excludes Locally Operated Transit Systems (LOTS) and Washington Metropolitan Area Transit Administration (WMATA).

## Why Did Performance Change?

- MTA continued using smaller four-car train sets for daily service on Baltimore Metro to reduce energy consumption which reduced vehicle service mileage
- MARC Penn Line service increased to eight train sets, providing approximately 1,000 additional seats during the morning and evening rush hours. The new schedule was implemented in an effort to reduce overcrowded conditions and improve on time performance

## What Are Future Performance Strategies?

- Increase or reallocate service miles, where needed, to maximize transit availability

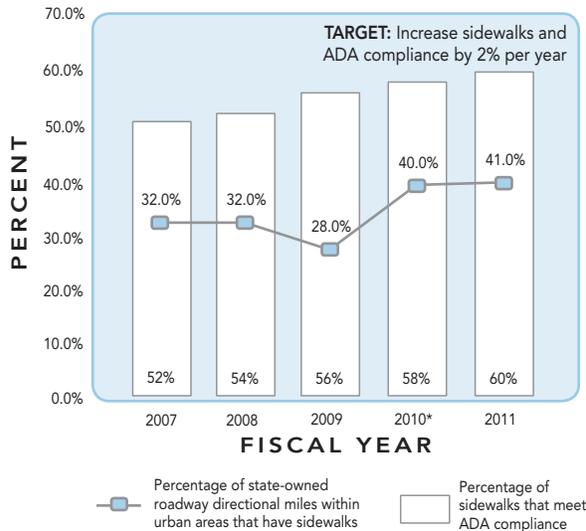


NOW

Transit-Oriented Development at the University of Baltimore – Mount Royal Station

## SHA: Percentage of State-Owned Roadway Directional Miles Within Urban Areas That Have Sidewalks and Percent of Sidewalks That Meet Americans with Disabilities Act (ADA) Compliance

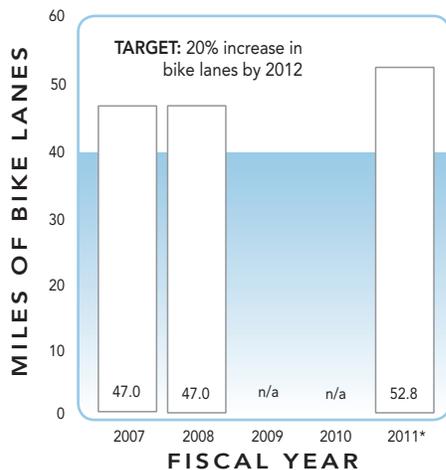
Available sidewalk facilities provide mobility for pedestrians. Tracking the percent that are ADA compliant helps ascertain whether Maryland's sidewalk program meets federal benchmarks.



\*2010 data is based on a new data collection method that cannot be accurately compared to previous years' data.

## SHA: Percentage of State-Owned Roadway Directional Miles with a Bicycle Level of Comfort (BLOC) Grade "D" or Better and Mileage of SHA-Owned Highways with Marked Bike Lanes

BLOC (scale "A" to "F") is a useful measure for assessing the statewide roadway system for its comfort and compatibility with bicycle users. Marked bike lanes are designated by pavement markings for the preferential or exclusive use of bicyclists and may be supplemented with signage. Shoulder width is a key element for improving BLOC, even more than a marked bicycle lane.



\*FY2011 marked bike lane mileage is the new baseline data for the 2012 Attainment Report. The BLOC measure has consistently shown 79-80% of facilities meeting a grade of "D" or better in previous years. It has been removed this year as SHA is updating the inventory and calculation of this measure.

### Why Did Performance Change?

- Invested \$10.9 million in FY2011 to improve sidewalks and to address ADA issues, including \$2.5 million to support the new Pedestrian Access to Transit Program
- Installed more than 600 accessible pedestrian signals since the program began in FY2006
- The ICC/MD 200 includes the construction of a total of approximately 11.5 miles of new bicycle/pedestrian trails and another three miles of reconstructed bicycle and pedestrian trails across the project area. The first section of the ICC trail between Needwood Road to Emory Lane opened in 2011

### What Are Future Performance Strategies?

- Support safe pedestrian access along state highways (\$11.1 million for the Sidewalk Retrofit Program and \$61.0 million for the ADA Compliance Program in the FY2012–FY2017 CTP)
- Target funds toward areas with a history of high pedestrian injuries and fatalities
- Continue upgrading intersections with pedestrian countdown signals and ADA features (e.g., wheelchair access and textured curbs)
- Construct numerous sidewalk improvement projects in FY2012 including: MD 528 in Ocean City, MD 450 in Annapolis, MD 2 in Glen Burnie, and MD 185 in Chevy Chase

### Why Did Performance Change?

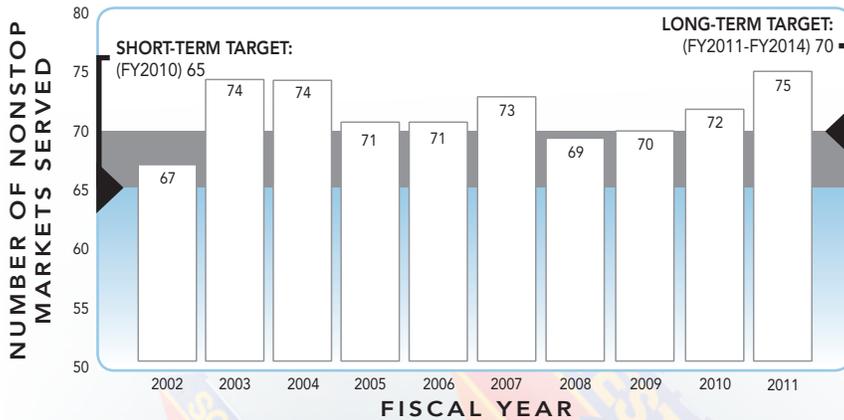
- Completed a bicycle network inventory using a geographic information system (GIS)-driven database that contains bicycle data along state roadways, and will be used as a basis for tracking future improvements (including bicycle lanes, shared-use paths, and shared lane facilities)
- Issued a policy on marked bike lanes in June 2011 that emphasizes SHA's commitment to making bicycle accommodations a routine and integral element of planning, design, construction, operations, and maintenance activities
- Began tracking the miles of bike lanes going both directions on roadways to better serve people traveling by bicycle

### What Are Future Performance Strategies?

- Revise the SHA bicycle guidelines to reflect changes made under the new bicycle policy and provide better design guidance in the developing bikeway facilities
- Develop web-based applications to provide users with an interactive tool to plan bicycle trips/routes
- Support bikeway projects along state highways (\$6.3 million for the Bicycle Retrofit Program in the FY2012–FY2017 CTP)
- Link existing state and local on-road bicycle facilities with off-road bicycle trails to provide better connectivity for people traveling by bicycle
- Link the GIS-based bicycle network inventory to BLOC calculation methodology for future reporting of this performance measure

## MAA: Number of Nonstop Airline Markets Served

Growth in the number of nonstop destinations served provides enhanced mobility options to passengers traveling to cities in the U.S. and around the world; increases the attractiveness of BWI Marshall as the airport of choice in the region; and reflects the success of MAA's marketing efforts to increase the competitiveness of BWI Marshall for business and leisure travel.



### Why Did Performance Change?

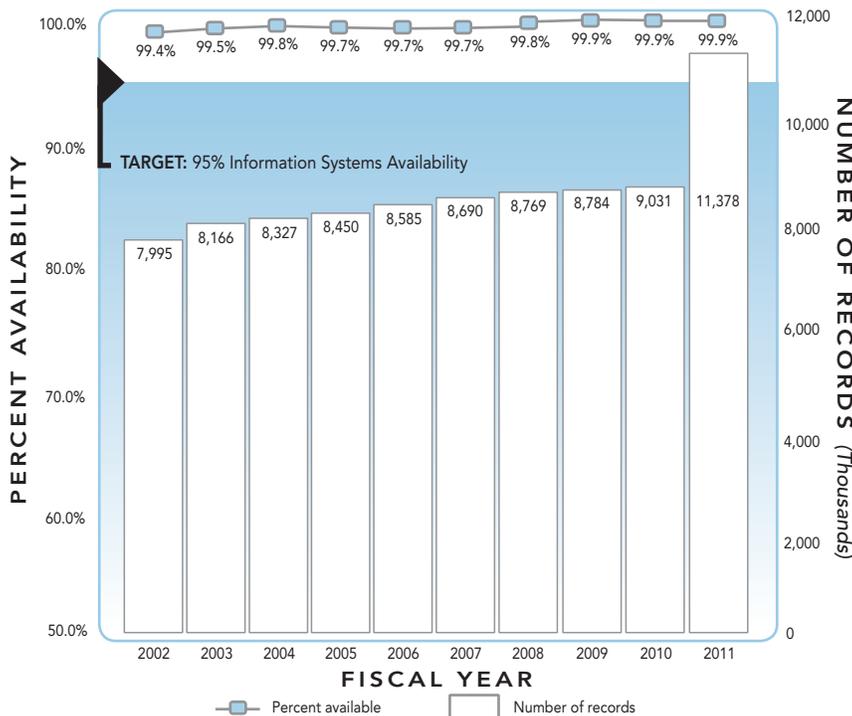
- Southwest and AirTran initiated service in new domestic and international markets
- In FY2011, Southwest added new nonstop service from BWI Marshall to Charleston and Greenville/Spartanburg, SC, and Newark, NJ
- AirTran continues to increase its international presence at BWI Marshall with new summer seasonal service to Bermuda and new service to Aruba
- Condor Airlines will start twice weekly service from BWI Marshall to Frankfurt, Germany in the summer of 2012
- Vision Airlines has begun twice weekly service from BWI Marshall to Freeport, Bahamas
- Nearly 22.5 million passengers traveled through BWI Marshall in FY2011, an increase of 5.5% over FY2010

### What Are Future Performance Strategies?

- Focus marketing and awareness campaigns on the advantages of using BWI Marshall, (e.g., easy parking, attractive concessions, and accessible ground transportation options)
- Meet with targeted airlines to promote air service opportunities to BWI Marshall
- Continue to promote BWI Marshall as a convenient gateway to Washington, D.C.

## MVA: Percent of Information System Availability Compared to Total Number of Records Maintained

This measures progress in maintaining the availability, integrity, and security of MVA data because access to driver and vehicle data is critical to law enforcement and government agencies, 24 hours a day, 7 days a week.



### Why Did Performance Change?

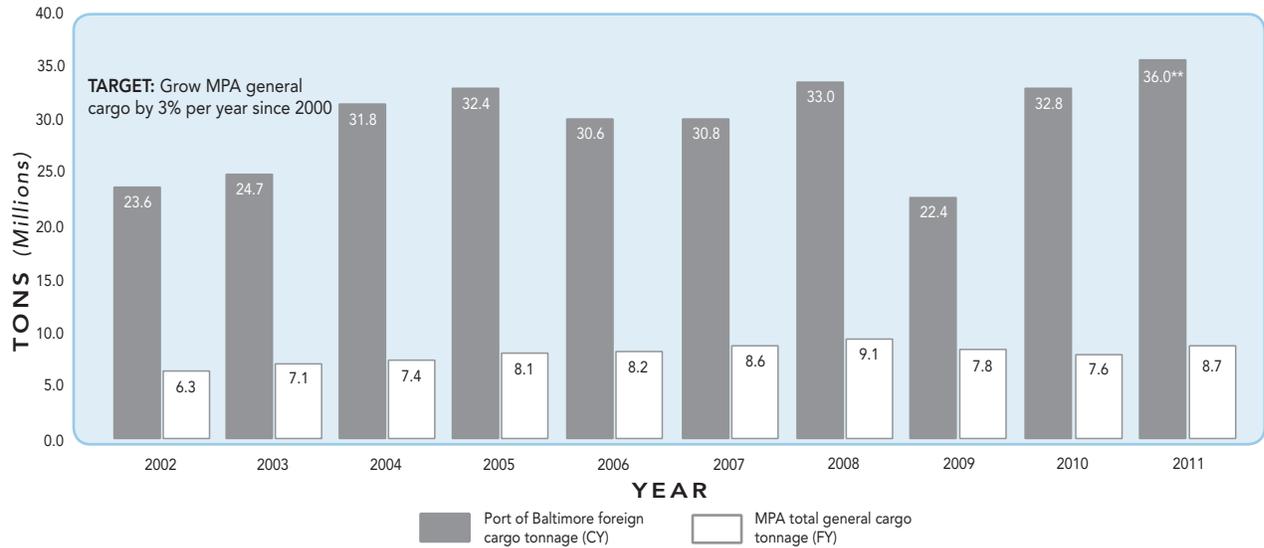
- The amount of system availability remained at 99.9% in FY2011
- Continued to minimize both planned and unplanned outages through management of, and investment in, information technology systems
- The number of licensed drivers and registered motor vehicle records increased over 25% from FY2010 to FY2011
- Mainframe record capacity is driven by demographic changes, e.g., growing population

### What Are Future Performance Strategies?

- Continue employing the latest technologies and security protocols to ensure full-time access with minimal business disruptions
- Continue to provide data for Law Enforcement, Child Support Enforcement, Arrest Warrants, Courts Point System, Board of Elections, Organ Donor, and Chesapeake Bay and Agriculture Programs

## MPA: Port of Baltimore Foreign Cargo & MPA General Cargo Tonnage\*

There are many factors outside MPA's influence that impact the movement of freight, such as national and world economic trends, labor costs (in Maryland and at competing ports), value of the U.S. dollar, rail and highway service and rates, prolonged weather conditions, and changes in vessel sizes. Tracking cargo trends supports MPA's management decisions and helps to assess the economic impact of freight activity occurring at the Port of Baltimore and MPA terminals.



\* MPA general cargo includes both foreign and domestic waterborne cargo.

\*\* Port of Baltimore cargo tonnage for 2011 is an estimate.

### Why Did Performance Change?

- Continued seeing significant growth in imported and exported automobiles
- Cargo such as forest products, construction, and agricultural equipment increased
- Ford began shipping 17,000 of its Fiesta vehicles through the Port of Baltimore
- Handled 42,830 cars in October of 2010 at the Port's public terminals, surpassing the record for most cars handled in one month
- The Port's public marine terminals handled a record 632,482 TEU containers from April 2010 through March 2011, the best 12-month period in the Port's history
- Coal exports increased at the Port's private terminals

### What Are Future Performance Strategies?

- Construction is underway to build a new 50' deep container berth to accommodate larger vessels expected to arrive on the U.S. East Coast when the Panama Canal is expanded in 2014
- Continue the Quality Cargo Handling Team (Q-CHAT) to further improve cargo handling
- Employ benefit-cost analysis of process-enhancing technologies to improve gate and terminal performance

- Attract a new container carrier and add a new service from an existing container carrier
- Work with State and regional economic development offices to locate sites for new distribution centers
- Renew the Memorandum of Understanding agreement with the Panama Canal Authority for five additional years to generate new business opportunities through the Panama Canal between Asia and the Port of Baltimore, and to facilitate information sharing and exchange best practices
- Continue to target auto and machinery manufacturers to provide long-term commitments
- Attract a new tenant for Fairfield Marine Terminal and the cargo shed at South Locust Point
- Develop an additional privately-operated vehicle (POV) gate at Dundalk to allow for efficient traffic flow as it relates to transportation worker identification credential (TWIC) escorts
- Construct new cargo gate for South Locust Point to improve security, capacity, and processing times
- Work with Baltimore City and County to ensure adequate truck access routes to port terminals are preserved
- When available, purchase land adjacent to existing terminals to incrementally increase cargo capacity



# MPA: International Cruises Using the Port of Baltimore

Measures cruise business activity departing from the Port of Baltimore to foreign destinations.

CALENDAR YEAR	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of international cruises using MPA's terminal	32	35	59	28	28	29	27	81	90	105

TARGET: 105 cruises in 2011; 100 cruises in 2012

## Why Did Performance Change?

- Royal Caribbean International reports that their ships are sailing at over 100% capacity (more than two people per cabin)
- 210,549 cruise passengers embarked from the Port of Baltimore's Cruise Maryland Terminal in CY2010, breaking another all time record
- Installed a new flexible passenger boarding bridge that will accommodate a variety of vessel sizes
- Carnival Cruise Lines and Royal Caribbean International continue to offer year-round service from the Port of Baltimore
- Carnival Cruise Lines continues to build upon its core base in the mid-Atlantic with Baltimore as one of its flagship ports

## What Are Future Performance Strategies?

- Continue promoting the Port as a convenient location for year-round cruising and improve the year-round comfort and convenience of cruise line passengers, for example, by constructing a covered breezeway from the terminal to the vessel (a total of \$2.7 million for South Locust Point Cruise Terminal in the FY2012–FY2017 CTP)
- Strengthen existing relationships and build new ones with cruise lines and tourism organizations
- Attract additional cruise line commitments by highlighting the Port as a cruising alternative
- Make water and landside adjustments as necessary, such as expanding facilities to handle two cruise ships per day, to continue increasing the number of cruise ships and passengers using the Port



# NOW

*The Cruise Maryland Terminal set consecutive records in 2009, 2010, and again in 2011, and will level off at about 100 cruises a year*



# THEN

*MPA converted a lumber warehouse into the successful Cruise Maryland Terminal*

GLOSSARY TERM	DEFINITION
Annual Attainment Report on Transportation System Performance	Pursuant to Transportation Article Section 2-103.1 of the Annotated Code of Maryland, the state is required to develop or update an annual performance report on the attainment of transportation goals and benchmarks in the Maryland Transportation Plan (MTP) & Consolidated Transportation Program (CTP). The Attainment Report must be presented annually to the Governor and General Assembly before they may consider the MTP and CTP.
American Recovery and Reinvestment Act (ARRA)	The ARRA of 2009 is an economic recovery package with three immediate goals: <ul style="list-style-type: none"> <li>• Create new jobs and save existing ones;</li> <li>• Spur economic activity and invest in long-term growth; and</li> <li>• Foster unprecedented levels of accountability and transparency in government spending.</li> </ul> More information is available at: <a href="http://www.recovery.gov">www.recovery.gov</a> .
Base Realignment and Closure (BRAC)	BRAC is a Congressionally authorized process the Department of Defense has previously used to reorganize its base structure to more efficiently and effectively support U.S. forces, increase operational readiness and facilitate new ways of doing business.
Calendar Year (CY)	The period of 12 months beginning January 1 and ending December 31 of each reporting year.
Coordinated Highways Action Response Team (CHART)	CHART is an incident management system aimed at improving real-time travel conditions of Maryland's highway system. CHART is a joint effort of the State Highway Administration, Maryland Transportation Authority, and the Maryland State Police, in cooperation with other Federal, State, and local agencies.
Consolidated Transportation Program (CTP)	A six-year program of capital projects, which is updated annually to add new projects and reflect changes in financial commitments.
E-ZPass®	An electronic toll collection system utilized to provide a more efficient flow of traffic through MDTA toll facilities. E-ZPass® toll collection is available at all eight MDTA toll facilities. The benefits of E-ZPass® membership allow travel from Virginia to Maine and as far west as Illinois, with tolls paid from a Maryland E-ZPass® account.
Fiscal Year (FY)	A yearly accounting period covering the time frame between July 1 and June 30 of each reporting year.
Intercounty Connector (ICC)/MD 200	New all electronic toll-road between I-270 in Montgomery County to I-95 in Prince George's County.
Locally Operated Transit Systems (LOTS)	Transit systems that provide primarily bus service and demand response within the local areas in which they operate. They are funded through a combination of federal, state and local money. MDOT provides financial, technical, and operating support for these services.
Maryland Transportation Plan (MTP)	The MTP is MDOT's long-range transportation policy plan and includes the vision, goals and objectives that provide the policy framework and context for Maryland's transportation programs and investments. The MTP sets Department policy for the 20-year period and is updated every five years.
MPA General Cargo	Foreign and domestic waterborne general cargo handled at the public (MPA) terminals.
Port of Baltimore Foreign Cargo	International (Foreign) cargo handled at public and private terminals within the Baltimore Port District. This includes bulk cargo (e.g., coal, sugar, petroleum, ore, etc. shipped in bulk) and all general cargo (e.g., miscellaneous goods shipped in various packaging).
Mode	Form of transportation used to move people or cargo (e.g., truck, rail, air).
REAL ID	The Federal REAL ID Act of 2005 sets new standards designed to improve the integrity and security of state-issued driver's licenses and identification cards. The legislation contains 39 benchmarks for states to meet the requirements of the REAL ID Act. The full text of the REAL ID Act (including benchmarks) is available on the Department of Homeland Security's website at <a href="http://www.dhs.gov">www.dhs.gov</a> . General information about Maryland's involvement with the REAL ID Act is available on MVA's website at <a href="http://www.marylandmva.com">www.marylandmva.com</a> .
Smart Green & Growing	<i>Smart Green &amp; Growing</i> is a long-range, statewide multi-agency initiative to help Maryland achieve a more sustainable future by linking community revitalization, transportation improvements, Smart Growth, and environmental restoration efforts.
State Report on Transportation (SRT)	The SRT is prepared annually and distributed to the General Assembly, local elected officials, and interested citizens. It consists of two documents, the Maryland Transportation Plan (MTP) and the Consolidated Transportation Program (CTP).
Transit-Oriented Development (TOD)	TOD creates places around high-quality transit service that permit lifestyles and employment options where walking, bicycling and transit travel is convenient and safe. Designed for pedestrian comfort, mixes of uses, and higher densities are combined to create comfortable walking environments. Close proximity to the transit (bus or train) station and the quality of the TOD helps to promote use of transit and less reliance on the automobile.
Travel Demand Management (TDM)	TDM strategies support the use of alternatives to the traditional single-occupant vehicle through a variety of programs and incentives (e.g., carpooling, car sharing, transit, park-and-ride facilities, teleworking, and flexible work hours).
Vehicle Miles of Travel (VMT)	A measurement of the total miles traveled by all vehicles.

# Appendix: List of Performance Measures

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
<b>Maryland Department of Transportation (MDOT)</b>		
Environmental Stewardship	Transportation Emissions Reduction Measures (TERMs) <ul style="list-style-type: none"> <li>• Commuter Operations and Ridesharing Center</li> <li>• Employer Outreach (including Employer Outreach for Bicycles)</li> <li>• Guaranteed Ride Home</li> <li>• Integrated Rideshare</li> <li>• Mass Marketing</li> <li>• Telework Resource Center</li> </ul>	TERMs and Travel Demand Management (TDM) strategies support the use of alternatives to the traditional single-occupant vehicle
Environmental Stewardship	Transportation-related emissions by region	Tons of Volatile Organic Compound (VOCs) and Nitrogen Oxide (NOx), precursors of Ozone, emitted per day for an average weekday from transportation sources in the Baltimore and Washington regions
Environmental Stewardship	Transportation-related greenhouse gas (GHG) emissions	GHG emissions primarily include carbon dioxide, methane, nitrous oxide, carbon monoxide, oxides of nitrogen and non-methane volatile organic compounds
<b>Maryland Aviation Administration (MAA)</b>		
Quality of Service	Percent of BWI Marshall customers rating the airport "good" or "excellent" on key services	Percent of customers giving a score of 4 or 5 (on a 5 point scale) for "Overall Satisfaction" and "How likely to fly from BWI Marshall on their next trip"
Safety & Security	BWI Marshall crime rate	Crimes include all crimes against persons or property at BWI Marshall facilities
Safety & Security	Number of repeat discrepancies in the annual Federal Aviation Administration's Federal Aviation Regulation inspection	Annual FAA Part 139 Federal Aviation Regulation (FAR) assessment conducted by the Federal Aviation Administration
Safety & Security	Rate of airfield ramp incidents and accidents per 1,000 operations	Incident reports collected by MAA / 1,000 operations (take offs and landings)
System Preservation & Performance	Airline cost per enplaned passenger (CPE)	Total airline-related fees / Total enplaned passengers at BWI Marshall
System Preservation & Performance	Non-airline revenue per enplaned passenger (RPE)	Total non-airline revenue (ground transportation, parking, concessions, etc.) / Total enplaned passengers at BWI Marshall
Connectivity for Daily Life	Number of nonstop airline markets served	Nonstop flights are direct to destination without connections
<b>Maryland Port Administration (MPA)</b>		
Quality of Service	Average truck turn-around time at Seagirt Marine Terminal	Amount of time for a truck to enter the Terminal gate, drop off and/or receive a container, and exit the gate
Safety & Security	MPA compliance with the Maritime Transportation Security Act of 2002	MPA activities in support of a compliance (Pass / Fail) rating from the U.S. Coast Guard
System Preservation & Performance	Adequate dredge material placement capacity remaining for Harbor and Bay maintenance and new work dredging	Monitors existing capacity remaining at Harbor and Bay dredged material placement sites
System Preservation & Performance	Revenue versus operating expense	Total revenues compared to operating expense of MPA, but excluding some exclusions
Environmental Stewardship	Acres of wetlands or wildlife habitat created, restored, or improved since 2000	Cumulative tally of acreage created, restored, or improved for wildlife habitat
Connectivity for Daily Life	International cruises using the Port of Baltimore	Number of international cruises using the Port of Baltimore as a home port

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
<b>Maryland Port Administration (MPA) (Continued)</b>		
Connectivity for Daily Life	Port of Baltimore foreign cargo and MPA general cargo tonnage	MPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo includes bulk and general cargoes within the Port District, but does not include domestic cargo
<b>Maryland Transit Administration (MTA)</b>		
Quality of Service	Customer satisfaction rating	Average score for: Overall satisfaction of each MTA service (Local Bus, Light Rail, Baltimore Metro, and MARC)
Quality of Service	Percent of service provided on time	METRO and MARC: Number of trips arriving on schedule. Local Bus: Calculated from data-transmitting buses tracking the number of time points arrived at on-time divided by the total number of scheduled time points
Safety & Security	Customer perceptions of safety on the MTA system	Average score for: Feeling safe while riding, while waiting at stops and stations, and for my vehicle left in an MTA parking lot
Safety & Security	Preventable accidents per 100,000 vehicle miles	Preventable accidents are accidents in which drivers did not do everything they could to avoid an accident / 100,000 vehicle miles
System Preservation & Performance	Operating cost per passenger trip	Total operating expenses / Number of unlinked passenger trips
System Preservation & Performance	Operating cost per revenue vehicle mile	Operating cost for each mode / Total miles when vehicle is in service (not deadheading or down time)
System Preservation & Performance	Passengers per revenue vehicle mile	Passenger trips by mode / Total revenue miles by mode
Environmental Stewardship	Transportation Emissions Reduction Measures <ul style="list-style-type: none"> <li>• MTA College Pass</li> <li>• MTA Commuter Choice Maryland Pass</li> <li>• Transit Store in Baltimore</li> </ul>	TERMs and Travel Demand Management strategies support the use of alternatives to the traditional single-occupant vehicle
Environmental Stewardship	Travel Demand Management <ul style="list-style-type: none"> <li>• Number of park-and-ride spaces—MTA Operated</li> <li>• Transit Multipurpose</li> </ul>	Transit lots are MTA owned; multipurpose lots are not MTA owned
Connectivity for Daily Life	Annual revenue vehicle miles of MTA service provided	Revenue vehicle miles are defined as each mile for which a transit vehicle is in service and accepting customers
Connectivity for Daily Life	Average weekday transit ridership	Ridership for Local Bus, Light Rail, Baltimore Metro, MARC, Contracted Commuter Bus, and Paratransit & Taxi Access
<b>Maryland Transportation Authority (MDTA)</b>		
Quality of Service	Overall customer satisfaction of <i>E-ZPass</i> ® customers	Customer satisfaction based on customer satisfaction survey
Quality of Service	Percentage of tolls collected electronically	Toll collections by <i>E-ZPass</i> ® and Automatic Vehicle Identification / Total number of toll collections
<b>Motor Vehicle Administration (MVA)</b>		
Quality of Service	Branch office customer visit time versus customer satisfaction rating	Average visit time plotted against percentage of customers rating their MVA experience as "good" or "very good" (based on quarterly survey of customers)
Safety & Security	Percent of Homeland Security REAL ID Act benchmarks achieved	Federal legislation contains 39 benchmarks for states to meet requirements of the Federal REAL ID Act
System Preservation & Performance	Alternative service delivery transactions as percent of total transactions	Transactions by alternative services (using a means other than a visit to an MVA branch) / Total transactions
System Preservation & Performance	Cost per transaction	Operating costs and capitalized costs / Number of transactions

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
<b>Motor Vehicle Administration (MVA) (Continued)</b>		
Environmental Stewardship	Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program (VEIP) versus customer wait time	Registered vehicles in non-attainment counties are scheduled for VEIP testing every two years. Compliance rate is the number of vehicles registered in non-attainment counties scheduled for testing / Number of registered vehicles in non-attainment counties tested
Connectivity for Daily Life	Percent of information system availability compared to total number of records maintained	Includes availability of data records by type and systems up time
<b>State Highway Administration (SHA)</b>		
Quality of Service	Maryland driver satisfaction rating	Satisfaction rating based on weighted average score for 22 questions
Quality of Service	Percentage of the Maryland SHA network in overall preferred maintenance condition	Internal peer review assessment of roadway features of the total SHA lane-miles
Safety & Security	Number of bicycle and pedestrian fatalities and injuries on all Maryland roads	Number of bicyclists and pedestrians killed / injured in traffic-related crashes in a calendar year
System Preservation & Performance	User cost savings for the traveling public due to incident management	Cost saving calculated using Coordinated Highways Action Response Team (CHART) incident response data
Environmental Stewardship	Acres of wetlands restored and miles of streams restored	SHA mitigation efforts for past impacts to wetlands and streams due to highway construction projects
Environmental Stewardship	Total fuel usage of the SHA light fleet	Fuel used by fleet of state-owned cars, dispensed at SHA facilities that contains ethanol (SHA light fleet consists of sedans, SUVs, half-ton pickup trucks and vans that use gasoline or gasoline/ethanol blends)
Environmental Stewardship	Travel Demand Management <ul style="list-style-type: none"> <li>Number of SHA park-and-ride spaces</li> <li>Reduction in vehicle miles traveled through park-and-ride usage</li> </ul>	SHA operates a number of park-and-ride facilities to support TDM
Connectivity for Daily Life	Percentage of state-owned roadway directional miles within urban areas that have sidewalks and percent of sidewalks that meet American's with Disabilities Act (ADA) compliance	On SHA roads where pedestrian access is allowed and within locally designated urban areas of 5,000 or more
Connectivity for Daily Life	Percentage of state-owned roadway directional miles with a bicycle level of comfort (BLOC) grade "D" or better and mileage of SHA-owned highways with marked bike lanes	BLOC is an A to F scale based primarily on the width of bicycle travel-way and the speed and volume of adjacent vehicular traffic; marked bike lanes are designated by pavement markings for the preferential or exclusive use of bicyclists and may be supplemented with signage
<b>State Highway Administration (SHA) and Maryland Transportation Authority (MDTA)</b>		
Safety & Security	Annual number of traffic fatalities and personal injuries on all roads in Maryland	The annual number of traffic fatalities and personal injuries on all Maryland roads including MDTA and locally owned facilities (the fatality and personal injury rate is calculated as fatalities and personal injuries per 100 million vehicle miles of travel)
System Preservation & Performance	Percent of roadway miles with acceptable ride quality	Percent of road with acceptable International Roughness Index (IRI) score
System Preservation & Performance	Number of bridges and percent that are structurally deficient	Number of bridges where at least one major structural element has a condition rating of 4 or less (out of 10)
Connectivity for Daily Life	Percent of freeway lane-miles and arterial lane-miles with average annual volumes at or above congested levels	Annual average daily traffic / Number of through lanes
<b>MDOT would like to offer special thanks and recognition to the following for provision of photos: Bill McAllen Photography, (p. 45, p.10, bottom); Yolanda Takesian (p. 42); Delmarva Community Transit (p. 27, p. 41 top); and Cycle Maryland (p. 3).</b>		



*Martin O'Malley, Governor*  
*Anthony G. Brown, Lt. Governor*  
*Beverley K. Swaim-Staley, Secretary*



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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; or from the Internet at [www.marylandtransportation.com](http://www.marylandtransportation.com).

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