



# 2014 Annual ATTAINMENT REPORT

## ON TRANSPORTATION SYSTEM PERFORMANCE

*Implementing the Maryland  
Transportation Plan &  
Consolidated  
Transportation  
Program*





**Martin O'Malley** Governor | **Anthony G. Brown** Lt. Governor

This past year, Maryland made better choices to achieve better results for our transportation system. From the passage of the Transportation Infrastructure Investment Act (Transportation Act) of 2013 to establishing a new, streamlined process for public-private partnerships (P3), Maryland will now be able to deliver projects that will create jobs, expand economic opportunity, better connect our communities and protect our environment.

The passage of the Transportation Act will allow us to invest \$4.4 billion in new projects and create 57,200 jobs in Maryland. Thanks to this historic legislation, we are funding a six-year transportation budget of \$15.4 billion – enabling us to advance new transportation projects that will get our construction industry back to work.

From key interchange projects to Transit-Oriented Developments (TODs), the Maryland Department of Transportation (MDOT) continues to place a high priority on investing in our State's multi-modal transportation system – the cornerstone of expanding economic opportunity in Maryland. These projects include job-creating investments at the Port of Baltimore and Baltimore / Washington International Thurgood Marshall Airport (BWI Marshall) that will ensure these two economic engines for Maryland continue to thrive.

Here in Maryland, we are also making key investments in projects that provide a more environmentally sustainable transportation network. From stormwater management and waterway restoration projects, to the conversion of vehicles to hybrid and alternative fuel technology, MDOT is moving forward with a variety of initiatives to improve the water quality in the Chesapeake Bay and help realize our vision of reducing greenhouse gas emissions by 25% by 2020.

In Maryland, we are making better choices to strengthen our infrastructure in order to improve the quality of life and compete in today's global marketplace. Please read more to learn about our efforts to put Maryland back to work in the transportation industry, to create hundreds of millions of dollars in economic activity and to connect more people to the opportunities of a modern economy.



**James T. Smith, Jr.** Maryland Secretary of Transportation

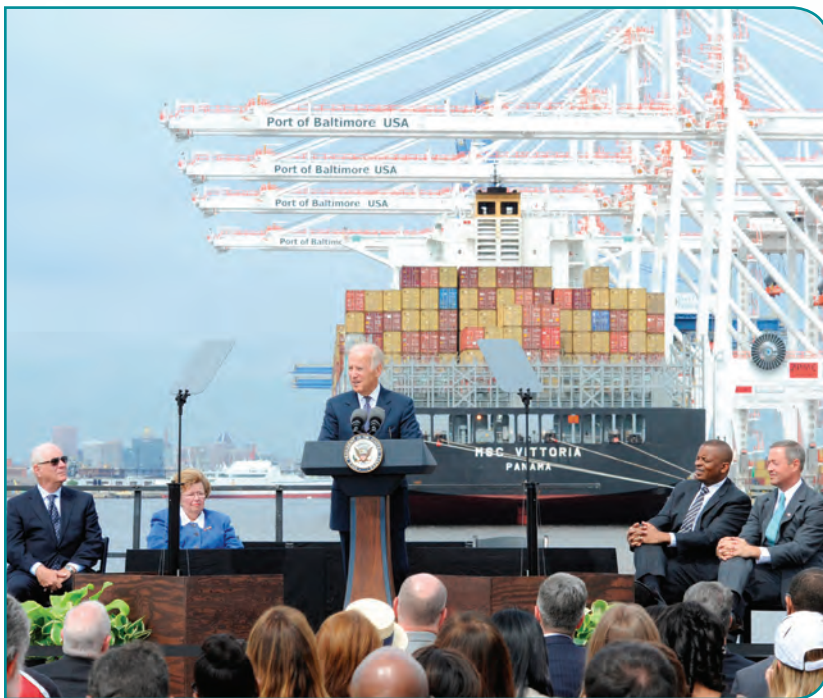


Delivering on the O'Malley-Brown Administration's promise to build a safe, interconnected and environmentally sound transportation network, I am pleased to present Maryland's 2014 Annual Attainment Report on Transportation System Performance. Every year, MDOT publishes the Attainment Report to assess our progress and to identify future strategies necessary to improve the transportation services and infrastructure we proudly deliver to Marylanders. Because of the hard work and courage demonstrated by Governor Martin O'Malley, Lt. Governor Anthony G. Brown, Senate President Thomas V. Mike Miller, Jr., House Speaker Michael E. Busch and members of the General Assembly, Maryland passed the Transportation Infrastructure Investment Act of 2013 – signifying a new era in robust transportation investments throughout the State. These new dollars will allow us to continue to accomplish key goals and initiatives outlined in this report, including: improving travel, creating jobs, expanding economic opportunity, connecting communities, enhancing safety and preserving our environment.

The 2014 Attainment Report includes a number of updated performance measures that communicate our progress on the goals and objectives we identified in our recently updated 20-year vision for transportation – the Maryland Transportation Plan (MTP). It also reflects guidance and investment strategies to support on-road and off-road cycling and walking throughout Maryland's transportation network outlined in the newly updated Bicycle and Pedestrian Master Plan.

Thanks to the leadership of Governor O'Malley and Lt. Governor Brown, our six-year capital program includes a continued commitment to invest in highway, interchange and bridge projects throughout the State and in transit projects like the Corridor Cities Transitway in Montgomery County, the Red Line in Baltimore and the P3 Purple Line in Montgomery and Prince's George's counties. Additionally, we are working with partner State agencies in supporting development around transit stations to create communities where people live, work and shop – all in walking distance to transit. Statewide, MDOT will invest nearly \$210 million in bicycle and pedestrian improvement projects and \$100 million in new funding for infrastructure investments supporting designated TOD locations. With the ongoing support from Maryland's Congressional Delegation, investments in the Port of Baltimore and BWI Marshall will continue to provide significant opportunities to Marylanders by creating jobs and expanding economic growth.

On behalf of the hard-working men and women of MDOT, we invite you to review 2014 Attainment Report and welcome your feedback and ideas as Maryland builds and maintains a world-class, balanced, 21st Century transportation system that promotes safety, economic development, community revitalization and environmental preservation.



## “Team Maryland” and MDOT Partner for Progress

Because federal aid represents nearly 20% of the total funding in Maryland’s Transportation Trust Fund (TTF), the hard work done by Maryland’s Congressional Delegation is vital to MDOT’s mission of building a safe, interconnected and environmentally sound transportation network. Led by Senators Barbara Mikulski and Ben Cardin, “Team Maryland” has been successful over the years in securing crucial federal funding to help advance key transportation projects throughout Maryland.

From improving transit service in our busy metropolitan areas and enhancing highway safety throughout the state to investing in infrastructure improvements that support BRAC jobs, MDOT benefits from a strong partnership with the best Congressional Delegation in the nation. Maryland’s Congressional Delegation also understands that transportation investments create jobs and support economic development. Our Congressional members have fought hard to secure funds to support Maryland’s two premier job-creating economic engines: BWI Marshall Airport and the Port of Baltimore.

At BWI Marshall, federal funding has played a vital role in our comprehensive, multi-year effort to improve our runways to meet updated federal safety standards and in our collaborative work to protect local residents from airport operations. Our Congressional members have been equally successful securing targeted federal investments to properly deepen and widen the waterways leading to the Port of Baltimore, as well as obtaining scarce federal funding to help make the Port one of the most secure ports in the nation.

MDOT is fortunate to have a united Congressional Delegation fighting for transportation projects that create jobs and help Maryland remain competitive. Through their leadership, MDOT is better able to meet the diverse transportation needs of Maryland citizens.

## Maryland 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                   |
| <b>THE STATE OF MARYLAND ALSO SUPPORTS:</b> |  |
| WMATA                                       | Washington Metropolitan Area Transit Authority |



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# Summary

Below are some of the performance results over the past year contained in this 2014 Report.



## Safety and Security

- Maryland's Calendar Year (CY) 2012 fatality rate of 0.91 fatalities per 100 million miles of travel is lower than other states in the region and 22% below the national rate. However, the number of fatalities on Maryland's roadways increased from 488 in CY 2011 to 511 in CY 2012, which corresponds with the increase in Vehicle Miles Traveled (VMT) from CY 2011 to CY 2012.
- The number of pedestrian fatalities on all roads in Maryland decreased from 105 in CY 2011 to 96 in CY 2012, which is an 8.5% decrease. In 2012, SHA, in coordination with local governments and community leaders, began formulating pedestrian safety action plans for eight high crash locations to help reduce pedestrian fatalities in the future.
- Five bicycle fatalities occurred in Maryland in CY 2012, which is the same number that occurred in CY 2011. This is lower than the 10 year average of 7.3 bicycle fatalities per year. SHA continues to implement a bicycle policy requiring consideration during resurfacing projects to construct bicycle lanes whenever possible and to mark bicycle lanes if space is available.
- Based on preliminary data for CY 2013, the preventable accident rate on MTA local bus services is projected to remain unchanged from the CY 2012 level. This reflects sustained improvement given the nearly 43% decrease that occurred the previous year.
- Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall) successfully completed the 2013 FAA safety and certification inspection with zero repeat discrepancies. MAA will continue to address all identified certification discrepancies within the federally-prescribed timeline.
- All of MPA terminals' Facility Security Assessment and Facility Security Plans currently meet Maritime Transportation Security Act requirements and have been approved by the U.S. Coast Guard.



## System Preservation

- In 2013, 86% of SHA and MDTA roadway mileage provided an acceptable ride quality. This exceeded the long term target of 84%. SHA and MDTA use pavement preservation treatments where appropriate to extend roadway service life.
- As a result of continuing aggressive bridge rehabilitation, the number of SHA and MDTA bridges that are rated as structurally deficient decreased from 101 in CY 2012 to 88 in CY 2013, a decrease of nearly 13%.
- On average, there are 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.
- The average age of the MTA local bus fleet has remained at seven years since CY 2009. MTA maintenance activities and bus procurements are planned and utilized to maintain the average age of the bus fleet.



## Quality of Service

- SHA continues to improve the level of service for pavement markings and lighting and has recently received federal funding for its line striping asset management program. SHA expects that the majority of line striping that did not initially meet the desired maintenance condition will do so in CY 2013.
- On time performance of MTA services improved or remained on-par with Fiscal Year (FY) 2012 performance except for Local Bus, MARC, and Mobility Paratransit & Taxi Access which each decreased by 1%. MTA is beginning preparations for a system upgrade to improve radio and GPS coverage for improved fleet management and on time performance.
- Operating cost per MTA passenger trip increased 9% (or \$0.51 per trip) due to rising fuel costs, contract increases and labor agreements.
- Average truck turn-around time at Seagirt Marine Terminal decreased from 30.2 minutes in FY 2012 to 29.5 minutes in FY 2013, its lowest time for a pick-up or drop-off since performance tracking started in 2001.
- Due to an increase of 222,000 transactions, the average customer visit time at MVA branch offices increased from 27 minutes in FY 2012 to 33 minutes in FY 2013. This added volume of transactions would have resulted in an even greater increase in average customer visit time were it not for an increase in the proportion of alternative service delivery transactions from 38.7% in FY 2012 to 39.0% in FY 2013.
- The customer experience at BWI Marshall continues to exceed its target. In FY 2013, 92% of surveyed BWI customers rated key services as "good" or "excellent", an increase from the 91% recorded in FY 2012.
- The number of MDTA toll transactions increased by six million and the percent of toll transactions collected electronically increased three percentage points from FY 2012 to FY 2013 due to a 66% increase in traffic along the Intercounty Connector (ICC)/MD 200 and across the Hatem Bridge (US 40), as well as continuing public outreach to encourage *E-ZPass*® use.



## Environmental Stewardship

- SHA performed over 4,000 erosion and sediment control inspections with only 20 non-compliance findings in FY 2013 for a compliance rate of 99.5%. MDTA performed 1,916 erosion and sediment control inspections with two non-compliance findings in FY 2013 for a compliance rate of 99.9%.
- Total fuel usage of SHA's light fleet decreased from 734,000 gallons in FY 2012 to 659,000 gallons in FY 2013, which is a 10% reduction. This is due in part to the purchase of 38 flex-fueled pickup trucks and corresponding phase-out of older gasoline pickups, as well as increasing fuel efficiency of SHA sedans and light trucks.
- MPA completed the restoration of the remaining 22 acres of Masonville Uplands for public use and wildlife habitat. The U.S. Fish and Wildlife Service named Masonville Cove the first National Urban Wildlife Refuge.
- 1.7 million vehicles were tested at MVA Vehicle Emissions Inspection Program (VEIP) stations in FY 2013, with 88% of vehicles in compliance and an average customer wait time of 5.4 minutes.
- Through the support of Travel Demand Management (TDM) projects and programs such as Commuter Choice Maryland, Commuter Connections, the Telework Partnership, various transit marketing and subsidy programs, and statewide park-and-ride facilities, Maryland's transportation agencies helped reduce 677 million vehicle miles traveled in CY 2013, resulting in less air pollution and reduced greenhouse gas (GHG) emissions.



## Community Vitality

- Annual revenue vehicle miles of service grew for all MTA services, indicating a general increase in the level of transit service available to, and in use by, the general public.
- SHA invested over \$16 million in FY 2013 to improve and construct sidewalks and to address ADA accessibility issues. The proportion of State-owned roadway miles within urban areas that have sidewalks increased from 21.0% in FY 2012 to 21.3% in FY 2013, while the proportion of sidewalks that are ADA compliant increased from 62% to 64% over the same time period.
- Congestion levels on Maryland's arterials, freeways and expressways remained relatively stable in CY 2013. The percent of VMT in congested conditions on arterials increased from 16% in CY 2012 to 17% in CY 2013, while the percent of VMT in congested conditions on freeways and expressways remained unchanged at 33%.
- In FY 2013, 18,500 intermodal containers were moved by rail through the Port of Baltimore, an increase of 1,000 (or 5.7%) over FY 2012. MDOT and MPA are working with CSX to relocate the intermodal container transfer facility from Seagirt to the CSX Mt. Clare Yard by 2015 to allow Port access to the national high cube double stack rail network and the potential to attract additional containerized cargo to the Port.



## Economic Prosperity

- The value of originating and terminating freight in Maryland in CY 2012 totaled over \$372 billion, representing over 300,000 tons of freight transported by air, rail, truck and water.
- Total general cargo at MPA's public terminals reached 9.6 million tons, an increase of 2.3% over FY 2012 and a new record high.
- BWI Marshall served 73 nonstop markets in FY 2013, a decrease of three from the previous year, but greater than the target of 70 nonstop markets.
- SHA's Coordinated Highways Action Response Team (CHART) incident management program reduced delay (on SHA, MDTA and other Maryland roadways) by an estimated 28.5 million vehicle-hours, saving motorists and commercial carriers an estimated \$1 billion.



# Introduction & Overview



## Guiding Maryland's Transportation System

Once a year, the Maryland Department of Transportation (MDOT) publishes the State Report on Transportation (SRT) that includes the Maryland Transportation Plan (MTP), the Consolidated Transportation Program (CTP) and the Attainment Report (AR). The SRT presents the full extent of MDOT's transportation activities, from long range policy for transportation in Maryland; to prioritizing, funding, and implementing a six-year capital program that addresses those goals; and systematically tracking results and strategizing for continuous improvement of the transportation system's performance.

The MTP is updated every five years and provides a 20-year vision for transportation in Maryland. The MTP vision, mission, goals and objectives are intended to provide a strategic framework to guide MDOT in making future transportation decisions and investments. The 2035 MTP, released in January 2014, was developed by MDOT in coordination with State agencies, local jurisdictions, stakeholder groups and the public. For more information about the Maryland Transportation Plan, visit: <http://www.mdot.maryland.gov/MTP>.

Concurrent with the MTP, MDOT updated the Maryland Bicycle and Pedestrian Master Plan. The Bicycle and Pedestrian Master Plan establishes a 20-year vision to guide investments that support cycling and walking, both on-road and off-road, as part of Maryland's multimodal transportation network. For more information about the Bicycle and Pedestrian Master Plan, visit: [www.mdot.maryland.gov/bikewalkplan](http://www.mdot.maryland.gov/bikewalkplan)

On May 16, 2013, Governor Martin O'Malley signed into law the Transportation Infrastructure Investment Act of 2013 (Transportation Act) – new legislation that will support thousands of jobs and invests an average of \$800 million a year at full implementation and a total of \$4.4 billion over the next six years (FY 2014–FY 2019). The CTP is the six-year capital budget outlook for all transportation projects for MDOT, Modal Administrations and the MDTA. This year's CTP (FY 2014–FY 2019) responds to the goals of the 2035 MTP, reflects the priorities of the O'Malley-Brown Administration and includes projects supported by the new funding available through the Transportation Act.

Whenever the MTP is updated, an Attainment Report Advisory Committee (ARAC) is appointed by the Governor to provide guidance to MDOT in the development of performance measures and to recommend strategies and format updates to increase the effectiveness of the Attainment Report. The 2014 Governor-appointed Advisory Committee on the Attainment Report on Transportation System Performance recommended the performance measures and format updates provided in this 2014 Annual Attainment Report and subsequent Attainment Reports consistent with the 2035 MTP. A special acknowledgement of the ARAC members is provided on the back cover.



The 2014 Attainment Report details how MDOT and its agencies are working together to achieve the goals and objectives of the recently completed 2035 MTP. Each chapter quantifies the progress that has been made, and identifies future strategies where additional emphasis might be required for success. The six chapters, consistent with the six goals of the MTP, include:

- **Safety & Security** – Enhance the safety of transportation system users and develop a transportation system that is resilient to natural or man-made hazards;
- **System Preservation** – Preserve and maintain the State's existing transportation infrastructure and assets;
- **Quality of Service** – Maintain and enhance the quality of service experienced by users of Maryland's transportation system;
- **Environmental Stewardship** – Ensure that the delivery of the State's transportation infrastructure program conserves and enhances Maryland's natural, historic and cultural resources;
- **Community Vitality** – Provide options for the movement of people and goods that support communities and quality of life; and,
- **Economic Prosperity** – Support a healthy and competitive Maryland economy.

## Integrating Multimodal Transportation

MDOT has direct coordination and oversight of all modes of transportation in Maryland. This structure allows MDOT to facilitate the strategic development of Maryland's intermodal transportation network across the following five transportation agencies and the Maryland Transportation Authority:

- **Maryland Aviation Administration (MAA)** operates Baltimore/Washington International Thurgood Marshall Airport (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, as well as grant funding and technical assistance to Locally-Operated Transit Systems (LOTS) across Maryland;
- **Motor Vehicle Administration (MVA)** is the gateway to Maryland transportation infrastructure providing a host of services for drivers and vehicles, including registration and licensing; and
- **State Highway Administration (SHA)** manages the State's highway system, which includes 17,050 lane miles of roads and 2,572 bridges.
- The MDOT Secretary serves as Chairman of the **Maryland Transportation Authority (MDTA)**, which owns, operates and maintains the State's eight toll facilities.

In addition,

- MDOT supports the **Washington Metropolitan Area Transit Authority (WMATA)**, which operates Metrorail and Metrobus.

## Transportation System Highlights

### Travel by Land

- MTA ridership reached 149.0 million in FY 2013, including 41.6 million on LOTS. In addition, nearly 125.7 million riders in 2013 utilized the WMATA system in Maryland.
- In FY 2013, the Coordinated Highways Action Response Team (CHART) incident management program responded to and cleared more than 17,000 incidents and assisted more than 26,000 stranded motorists.
- SHA completed six major bridge and highway projects in FY 2013 including the following bridge replacements – the US 220 bridge over the Potomac River (Allegany County), the I-695 bridge at MD 26 (Liberty Road) (Baltimore County) and the MD 328 (New Bridge Road) bridge over Tuckahoe Creek (Caroline and Talbot counties).
- SHA and the MDTA continue to place emphasis on improving the condition of bridges, an area of primary focus for the State. MDTA completed 12 major bridge, tunnel and highway projects in FY 2013 totaling \$256 million. Among the projects that were completed were rehabilitation of bridges, roadway and signage north and south of the Fort McHenry Tunnel on I-95, Bay Bridge dehumidification project and replacement of the Curtis Creek Bridge grid deck on MD 695.
- Critical links in Maryland's transportation system include the Chesapeake Bay Bridge (US 50), the Hatem Bridge (US 40), the Millard Tydings Bridge (I-95), Governor Harry W. Nice Bridge (US 301), Canton Viaduct and I-95 Fort McHenry Tunnel decking.
- SHA adopted a new complete streets policy early in FY 2013 that requires all SHA staff and partners to consider and incorporate Complete Streets criteria for all modes and types of transportation when developing or redeveloping the transportation system.
- Significant progress continues to be made across the 16 designated Transit-Oriented Development (TOD) locations across Maryland, including eight sites undergoing active development, including the recent opening of a new parking garage and groundbreaking for new residential development at Twinbrook Metro Station.
- Over 12.2 million MVA transactions were processed in FY 2013, including eMVA and walk-in transactions at MVA's branch office locations.
- In FY 2013, there were over 4.1 million licensed drivers and 4.8 million registered vehicles in Maryland.

### Travel by Air

- More than 22 million passengers traveled through BWI Marshall to domestic and international destinations in CY 2012.
- On average, 645 commercial flights arrive or depart from BWI Marshall each day.
- There are 18 publicly-owned airports and 18 privately-owned airports with public use available to Marylanders.
- The BWI Marshall Fire and Rescue Department dispatched equipment for local emergencies off-airport grounds 1,064 times in FY 2013.

### Travel by Water

- MPA general cargo tonnage increased to a record high of 9.6 million tons in FY 2013, and foreign cargo tonnage is projected to drop slightly to 33 million tons in CY 2013.
- In CY 2013, 91 international cruises embarked and disembarked at the MPA Cruise Maryland terminal plus there were an additional six port-calls by cruise ships.

## Ensuring Strategic Transportation Investments

The CTP provides a detailed listing of all major and minor projects and programs for MDOT and its modal agencies over the next six years. MDOT works together with residents, businesses, local jurisdictions, Metropolitan Planning Organizations (MPOs) and local and State-elected officials to include projects in the CTP that preserve existing investments, enhance transportation services and improve accessibility throughout the State. To ensure that every dollar available for transportation in Maryland is efficiently spent, MDOT reflects the priorities of the O'Malley-Brown Administration, incorporates the goals of the 2035 Maryland Transportation Plan, reviews input from engaged stakeholders, and employs a strategic decision making process, using established priorities and specific criteria to prioritize programs and projects under consideration for inclusion in the CTP.

Guided by these considerations, the CTP includes a clear set of priorities that represent the core focus of the State's investments in its transportation system. With the additional revenue from the Transportation Infrastructure Investment Act of 2013, this year's CTP added projects that address long-standing transportation issues throughout the State. All projects in the CTP reflect the goals of the MTP and one or more of Maryland's priorities, including economic development and jobs, transit improvements, system preservation, the *Smart, Green, & Growing* initiative, TOD, bicycle and pedestrian travel, the environment, safety and security, and freight.

For more information on the FY 2014–FY 2019 CTP, please visit:  
[www.ctp.maryland.gov](http://www.ctp.maryland.gov)



## Promoting Environmentally Sustainable Transportation

MDOT is committed to a transportation system that supports a sustainable future for Maryland. That commitment includes environmental stewardship and the development of forward-looking and adaptive strategies to protect Maryland's natural, cultural and community resources. All of the Modal Administrations and the MDTA have taken a proactive approach to integrate environmental protection, compliance, and sustainability into their policies, planning, and day-to-day operations.

In addition to agency-specific sustainability initiatives, MDOT's Office of Environment coordinates with the Office of Planning and Capital Programming (OPCP) on Department-wide development, implementation, oversight, coordination, and support for environmental programs and initiatives. As part of this coordination, MDOT is deploying consistent environmental management systems across all the modal agencies to help identify specific compliance needs, and achieve and maintain environmental regulatory compliance on an ongoing basis.

Collectively, approaches for multi-agency coordination, management, compliance, and proactive sustainable transportation solutions create a strong framework throughout MDOT that supports reducing the impacts of transportation infrastructure and activity on human health, the natural environment and the global climate. A few of this year's new initiatives included:

- Initiated design and construction of a number of Total Maximum Daily Load (TMDL) implementation projects to support Chesapeake Bay restoration including median bioswales, stream restoration, outfall stabilization, stormwater management facilities retrofits and tree planting;
- Developed new technologies and services to facilitate vehicle emissions testing as well as new regulations to ensure compliance with State emissions testing mandates;
- Operated 26 new MP-36 locomotives on the MARC system which meet stringent new EPA requirements for all types of pollutants;
- Increased use of recycled materials in highway construction in an effort to reduce greenhouse gas emissions and landfill waste—in CY 2012, 13% of all asphalt placed on Maryland roadways was recycled; and,
- Installed electric vehicle recharging stations for public use at locations throughout Maryland including MDOT Headquarters, BWI Marshall Airport, and park-and-ride lots and transit stations.

## Maryland's Investment in Transportation

MDOT has the ability to establish funding for each mode and for intermodal projects based on prioritized need and benefit to Marylanders, rather than through a legislative formula. MDOT applies fiscal resources from the Transportation Trust Fund (TTF), a dedicated account generated through taxes, fees, bond proceeds and federal funds, towards projects and programs across all MDOT modal agencies. This integrated fund enables the direct linkage between multimodal transportation planning and transportation solutions, supporting priority operating and capital needs across the State. MDOT works with the available and forecasted resources of the TTF, which are heavily influenced by State and national economic conditions, projections of State transportation revenue and the availability of federal funding.

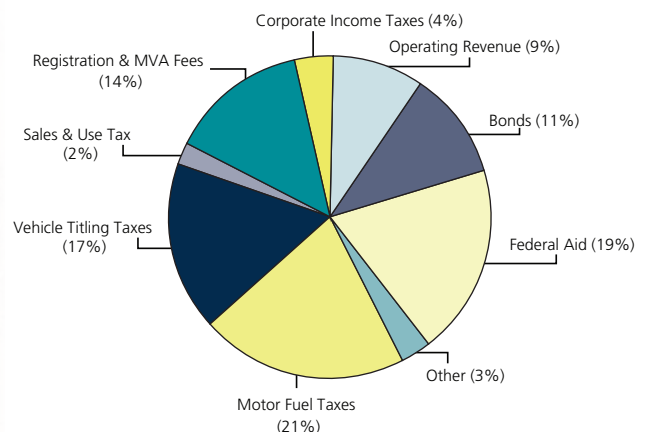
With additional funding available due to the enactment of the Transportation Act, new projects benefitting both rural and urban areas were added to the CTP, as a means to address long-standing transportation issues across the State.

All of the new projects funded by the Transportation Act are included in the FY 2014–FY 2019 CTP. The FY 2014–FY 2019 CTP totals about \$15.6 billion; \$14.4 billion of which comes through the TTF and \$1.2 billion from other fund sources. Other sources includes funds from Passenger Facility Charges (PFC), Customer Facility Charges (CFC) and federal funds received directly by WMATA.

MDOT carefully manages and applies all available funds to ensure the most efficient expenditure of dollars to serve Maryland's transportation needs, and to support economic prosperity in the State. For example to protect and ensure the safe operation of Maryland transportation agencies' investments, \$1,062 million is programmed in FY 2014 towards system preservation to fund maintenance of infrastructure assets. MDTA will allocate, out of separate MDTA funds, \$2.3 billion for System Preservation and System Enhancements, through several MDTA projects. MDOT and its modes also track the "percentage of budgeted dollars expended" as a way to compare the budget with borrowing levels and to avoid unnecessary borrowing. In FY 2013, for example, MDOT expended 97% of its budgeted dollars, meeting its goal of 90%, and MTA spent 94% of its FY 2013 budget.

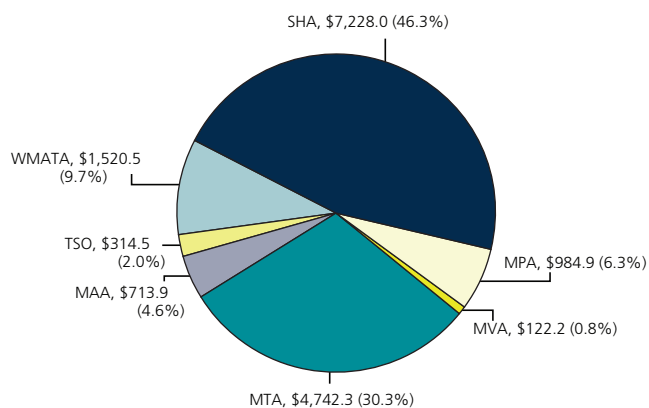
MDOT's capital and operating budget allocations, CTP funding levels over the last decade, the FY 2014–FY 2019 CTP funding sources and capital and operating budgets by Modal Administration and WMATA are shown in the following pie charts. As MDTA is independently funded through separate sources, its capital and operating budget are shown separately.

**MDOT Transportation Trust Fund Sources FY 2014–FY 2019 CTP**





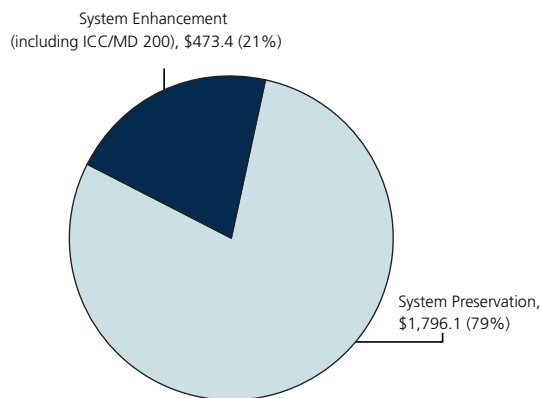
### MDOT Capital Budget (Millions) FY 2014–FY 2019 CTP\*



Total MDOT Capital Budget: \$15.63 Billion

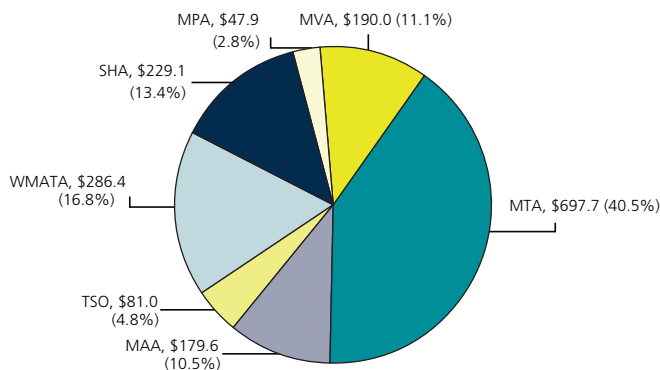
\* The FY 2014–FY 2019 CTP totals about \$15.6 billion; \$14.4 billion of which comes through the Trust Fund and \$1.2 billion from "Other" fund sources, including earned interest from trust funds, reimbursements and miscellaneous revenues.

### MDTA Capital Budget (Millions) FY 2014–FY 2019 CTP



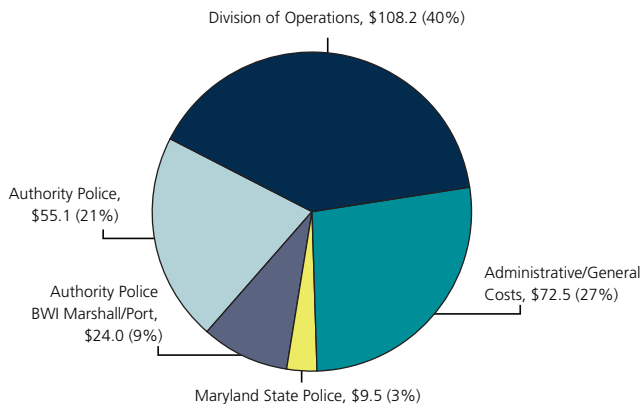
Total MDTA Capital Budget (Including ICC): \$2.26 Billion

### MDOT Operating Budget (Millions) FY 2014



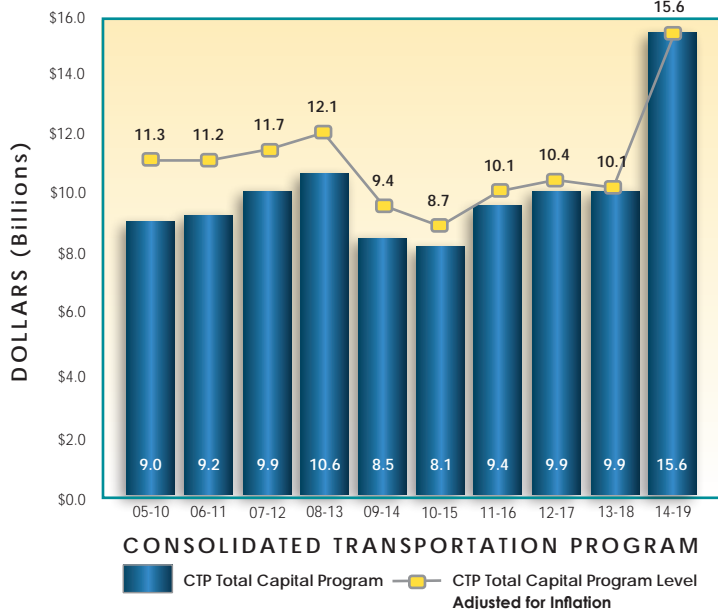
Total MDOT Operating Budget: \$1.71 Billion

### MDTA Operating Budget (Millions) FY 2014



Total MDTA Operating Budget: \$269.3 Million

### MDOT Total Capital Program Levels (Billions)



The MDOT Total Capital Program Levels displays both the CTP Total Capital Program Funding Levels and CTP Capital Funding Levels adjusted for inflation. CTP Total Capital Program Levels (dark blue columns) represent the total capital program amount for each CTP expressed in the particular year's dollar value. In order to accurately compare CTP Total Capital Program Levels and their comparative purchasing power over the last 10 years, the CTP Capital Funding Levels are adjusted for inflation (yellow line). The inflation adjusted amounts are calculated using the Consumer Price Index (CPI), which measures the average change in prices of a variety of consumer goods and services.

## Transportation Mobility and Accessibility

### Accommodating Travel Demand

Marylanders, visitors and freight carriers drove a total of 56.4 billion vehicle miles in Maryland in 2012. Over the last five years (2008–2012), total vehicle travel in Maryland has remained steady (a 0.4% increase from 2008 levels) and below the 2007 record of nearly 57 billion vehicle miles traveled. During this same period, transit ridership on MTA and local services in Maryland has continued to grow, from 101.6 million trips in FY 2008 to over 107.3 million trips in FY 2013 (a 5.5% increase from 2008 levels).

Where population and employment growth occurs in Maryland shapes the types of demand on Maryland’s transportation system and the requirements to address those demands. Conversely, investments in the multimodal transportation system can affect the spatial distribution of population and employment growth in the State. To help guide growth towards more efficient uses of land and infrastructure, the State and local jurisdictions in Maryland have identified Priority Funding Areas (PFAs), which are intended to provide a geographic focus for State investment in growth.

The Priority Funding Areas Act of 1997 (codified in §5-7B of the State Finance and Procurement Article of the Annotated Code of Maryland), restricts MDOT and other State agencies from investing in growth-related infrastructure outside of these areas. To provide safe, efficient connections between jurisdictions, however, and to provide for other activities such as dredged material placement and bridge replacements, some transportation investments must also be made outside of PFAs. In such cases, close coordination with local jurisdictions can help ensure that the infrastructure does not inadvertently promote urban sprawl.

Over the last ten years, Vehicle Miles Traveled (VMT) per capita has steadily decreased, a result of population growth matched with steady VMT and increased transit ridership. Changes in VMT per capita are an indicator of changing traveler behavior, access to alternative forms of transportation, and increased share of new development occurring in compact or mixed-use developments. VMT per capita also provides a view of environmental and roadway system impacts of vehicle travel by controlling for changes in total state population.

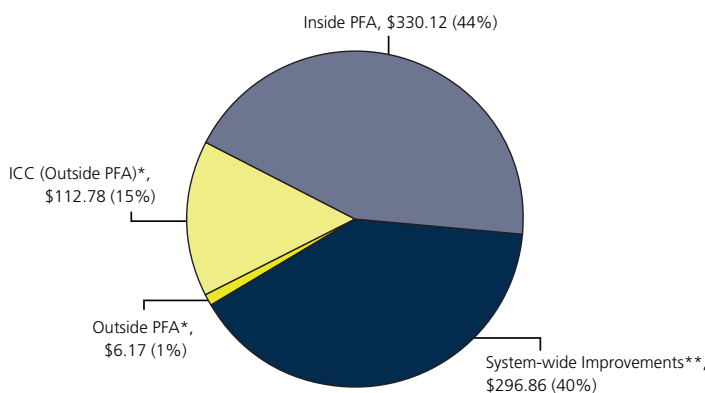
MDOT will continue to monitor changes in travel demand and seek to accommodate travel needs across all modes. Travel demand trends vary across the State and may change as Maryland continues to emerge from economic recession. Maryland’s population in 2012,

according to the American Community Survey, was just over 5.8 million, representing a 3% increase from 2008. Evidence supporting the conclusion for long-term growth in travel demand is substantiated by projections developed by the Maryland Department of Planning, which show that by 2040, Maryland’s population will be over 6.8 million, an increase of 17% from 5.8 million today. This population growth is attributed in part to projected strong growth in jobs in Maryland, by over 22% from 2010 to 2040.

Much of the growing travel demand in Maryland 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 and to accommodate current and future demand, the MVA continues to implement new Alternative Service Delivery (ASD) initiatives such as online driver’s license renewal and vehicle registration renewal options. As part of a new MVA initiative passed by the General Assembly in April 2012, MVA is increasing the drivers license renewal period to eight years, which means significantly fewer customer visits and shorter wait times at MVA branch offices and will allow the dedication of resources to other more complex customer transactions.

The anticipated population and economic growth in Maryland will be accommodated by an increasingly multimodal, reliable, safe, and efficient transportation system. The high cost of adding new capacity means that Maryland cannot simply build more highway lane miles or transit corridors to address new travel demand, but must rather find ways to get the most out of the existing network. While this includes strategic capacity additions, SHA, MDTA, and MTA are also finding ways to increase the effectiveness of the existing roadway and transit systems by operations strategies such as improved signal timing and coordination, faster incident response time, improved traveler information systems, priority transit systems and variable pricing on toll facilities, among others. Addressing travel demand also means encouraging land use and development design in a manner that supports transit use, walking and bicycling; MDOT accomplishes this through supporting TOD development, and SHA is actively implementing Complete Streets policies that result in streets that are safe for many types of users. A balanced multimodal approach and thoughtful land use supports forward thinking solutions to address growing demand.

### FY 2013 MDOT Major Transportation Projects Spending within Priority Funding Areas (Millions)



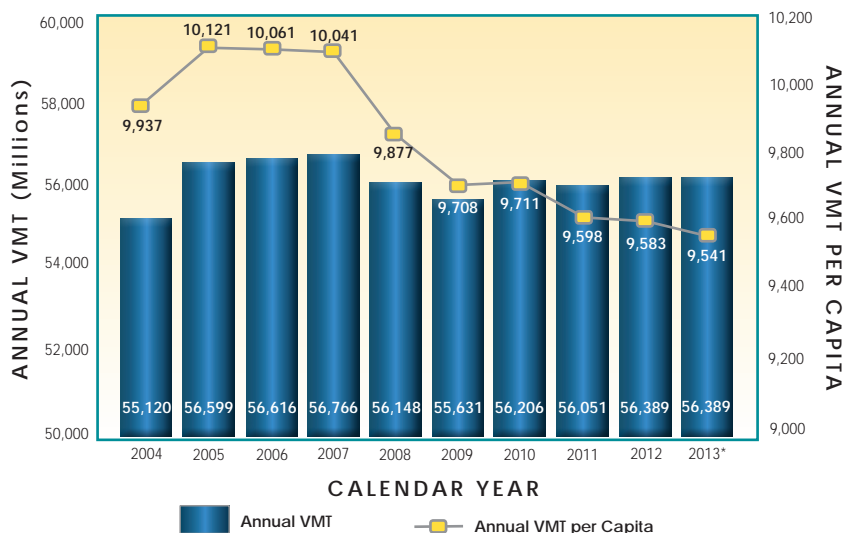
**Total MDOT Major Transportation Projects: \$746.23 Million**

\* Expenditures related to "Funding outside of PFAs" including projects underway prior to enactment of the Smart Growth Areas Act (therefore grandfathered) as well as exceptions granted in compliance with the statute. Exceptions include bridge replacements that did not add significant highway capacity as well as projects approved for exception by the Board of Public Works, such as the Intercounty Connector (ICC).

\*\* The category of "system wide improvements" includes funding for local transit assistance programs, the Maryland portion of the WMATA system, transit vehicle acquisition by MTA, and facility management system improvements by MVA.



## Annual Number of Vehicle Miles Traveled (VMT) and VMT per Capita



\*2013 data is preliminary and subject to change.

## MVA Transactions (Thousands)

|                              | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Registered Vehicles          | 4,690  | 4,752  | 4,774  | 4,736  | 4,816  | 4,809  | 4,822  | 4,824  |
| Driver's Licenses Issued     | 3,895  | 3,937  | 3,995  | 4,049  | 4,082  | 4,083  | 4,102  | 4,140  |
| Motorcycle Licenses          | 230    | 237    | 244    | 252    | 257    | 217    | 224    | 274    |
| Commercial Driver's Licenses | 160    | 164    | 167    | 168    | 170    | 173    | 177    | 180    |
| MVA Transactions Per Year    | 12,562 | 12,542 | 12,388 | 12,263 | 11,011 | 11,917 | 11,995 | 12,217 |



## Induced Travel

When transportation conditions are improved to help accommodate growing travel demand and reduce congestion, one result that can occur is an additional increase in auto trips or travel distance – known as induced travel. While induced travel can be an indication of economic growth and increase in new travel options, it also may lead to increased 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, as travelers may be encouraged to change modes (e.g. change from transit to driving). Because of these potential impacts, MDOT and its partners are proactively managing induced travel through a number of approaches.

In addition to providing significant transportation infrastructure investments, Maryland provides a variety of Travel Demand Management (TDM) strategies to support the use of alternatives to the single-occupant vehicle, including ridesharing, transit, alternative work schedules, and teleworking through a variety of programs and incentives. TDM helps to reduce single-occupancy vehicle usage and VMT, generally translating into energy savings, lower emissions, reduced parking needs and lower commuting costs. MDOT supports Commuter Choice Maryland, Commuter Connections, TeleworkBaltimore, and statewide park-and-ride facilities. In total, the combination of these programs are estimated to remove 677 million VMT annually from regional roadways.

## Balancing the Multimodal Approach

To expand mobility options, address the differing transportation needs in rural and urban areas, and improve transportation safety for all Marylanders, MDOT employs a balanced multimodal and multidisciplinary approach. To do so, MDOT provides opportunities for collaboration of professionals across many disciplines and seeks input from Marylanders across the State to determine transportation needs, and implement cost effective, coordinated solutions to address them. MDOT applies a balanced, multimodal approach to the multiyear implementation of the State's Base Realignment and Closure (BRAC) Action Plan. In FY 2013, approximately \$26 million was expended and in FY 2014, approximately \$26 million is expected to be spent on directly related BRAC projects.

The Bicycle and Pedestrian Master Plan update will provide guidance and investment strategies to support cycling and walking, both on-road and off-road, as part of Maryland's multimodal transportation network.

MDOT has recognized the transportation and public health relevance of walking and bicycling in Maryland and promotes transportation solutions that support the choice to include walking or bicycling as all or part of a trip. All MTA local buses are now equipped with bicycle racks. The Maryland Bikeshare and Bikeways programs, first implemented in 2012, are now having a visible impact in Maryland's communities. The FY 2014–FY 2019 CTP includes nearly \$209.6 million programmed for bicycle and pedestrian projects.

MDOT, through its support of multiple transit modes, helps expand mobility for all Marylanders. The MTA operates Local and Commuter Buses, Light Rail, Baltimore Metro Subway, MARC Train Service and a comprehensive Paratransit (Mobility)

system. MTA also manages the Taxi Access system, and directs funding and statewide assistance to Locally-Operated Transit Systems (LOTS) serving each of Maryland's 23 counties, Baltimore City, Annapolis and Ocean City, providing approximately \$101.9 million in federal and State grants in 2013. Through a regional compact, MDOT also supports WMATA, which provides transit service for Marylanders living and working in the Washington, DC region.

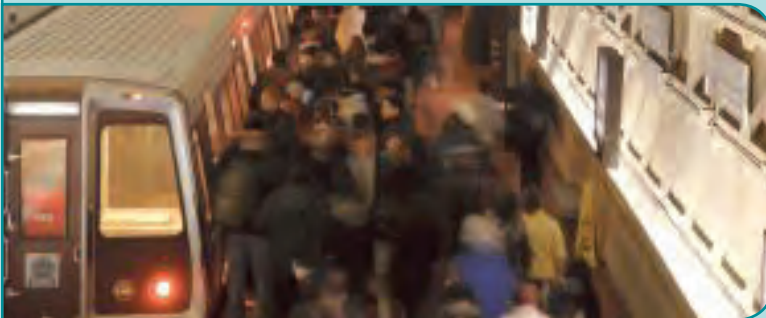
New revenue generated by the Transportation Act is supporting the advancement of new transit projects to meet current and future demand in the Washington and Baltimore regions, while also improving transit services and providing assistance to LOTS in rural areas, cities and towns across the State.

Two major initiatives at the MTA are the Bus Network Improvement Project (BNIP) and the MARC Growth and Investment Plan (MGIP) update. The MTA's BNIP will assess the needs and financial resources of the system as a basis for developing recommendations and an implementation strategy. MTA's BNIP is designed to ensure that job centers are adequately served by public transit; that families of all socioeconomic backgrounds have access to important resources like hospitals and educational centers; and that future transit service aligns with housing and job growth.

The MGIP update provides a framework for the MARC service to increase ridership, improve service, maintain a state of good repair and enhance the customer experience. The plan identifies immediate improvements, and recommends near-term and long-term investments to the MARC system.

### WMATA Service in Maryland

MDOT provides funding through a regional compact with Virginia and the District of Columbia for WMATA rail, bus and paratransit services to support Marylanders' travel by transit throughout the Washington region. More than 123.3 million passengers used the WMATA Metrorail, Metrobus, and MetroAccess system in Maryland in FY 2013. WMATA connects to many other local and regional transit modes in Maryland including Montgomery County Ride-On, Prince Georges County The Bus, MARC, MTA Commuter Bus and Amtrak.



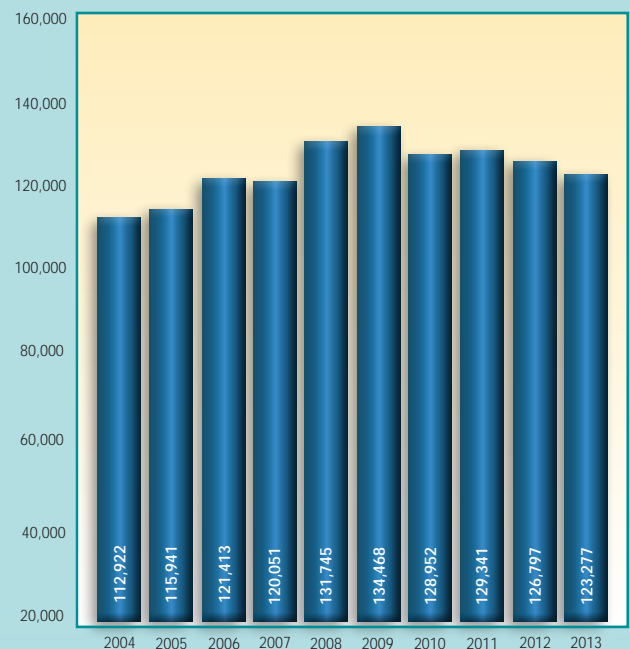
**Safety, Security, Reliability, & Customer Satisfaction performance information is provided in the Metro Scorecard and Vital Signs Report:**  
[www.wmata.com/about\\_metro/scorecard/](http://www.wmata.com/about_metro/scorecard/)

**WMATA Capital Improvement Program (CIP):** WMATA's FY 2014–FY 2019 CIP is focused on safety improvements, infrastructure rehabilitation and replacement, and maintaining the Washington region's primary transit system in a state of good repair. As part of the FY 2014–FY 2019 CTP, Maryland plans to provide nearly \$860 million to WMATA to support implementation of the CIP.

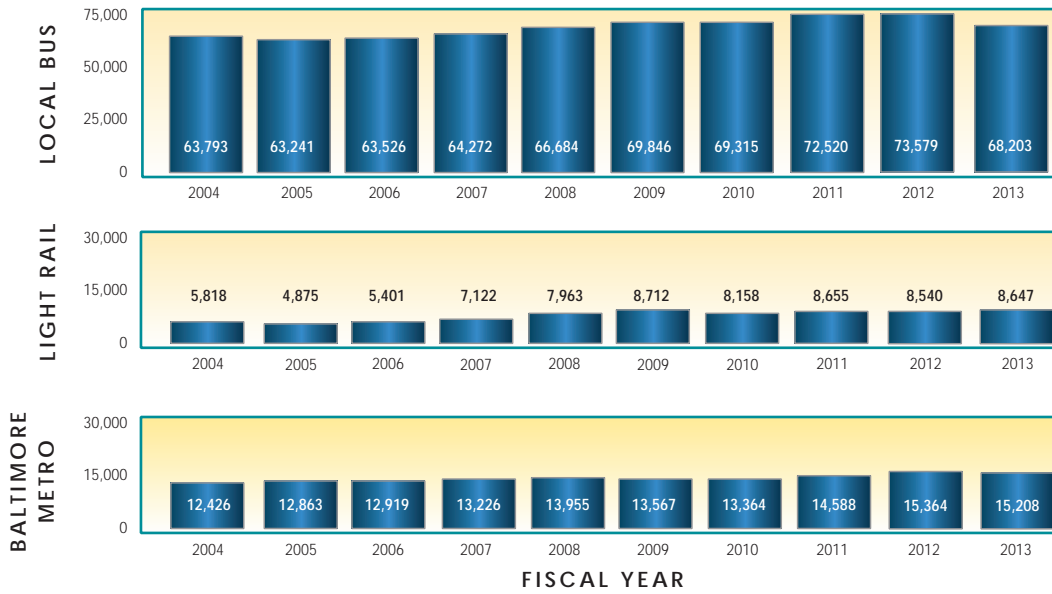
**Transit-Oriented Development:** MDOT is partnering with WMATA to plan and support joint development agreements at Metrorail stations including New Carrollton, White Flint and Branch Avenue.

**Bike and Pedestrian Access:** MDOT prioritizes bike and pedestrian improvements that provide better access to transit.

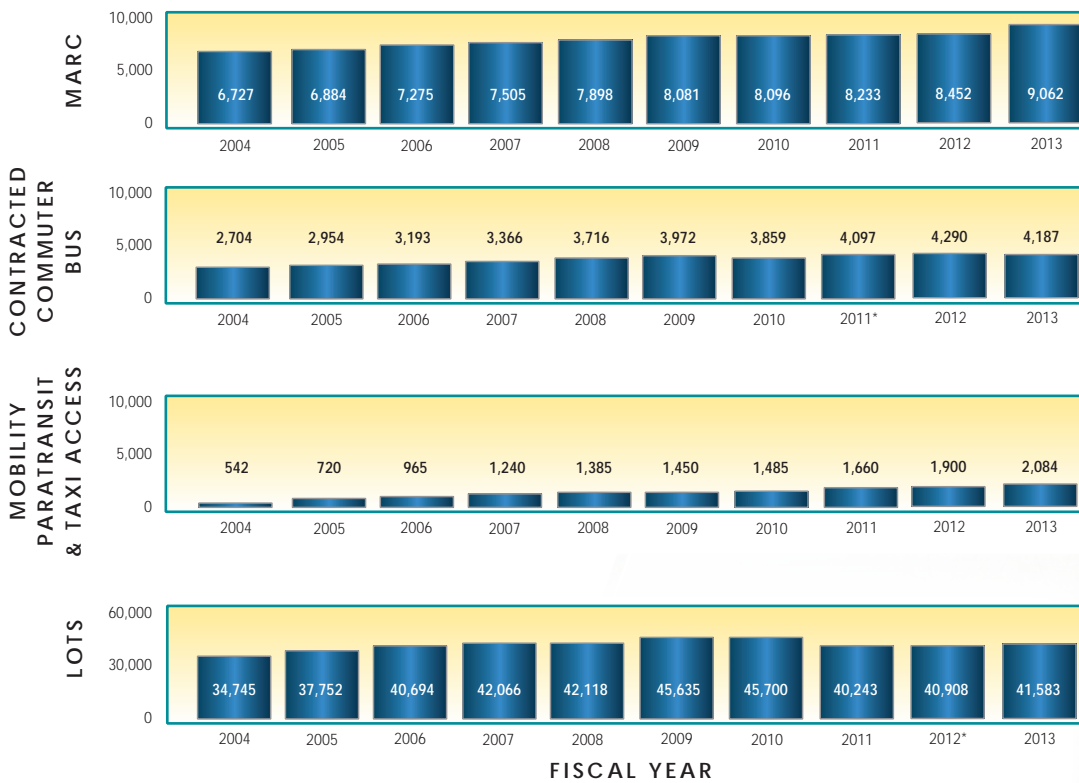
### Maryland-Only WMATA Ridership (Thousands)



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



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



\*LOTS 2012 data point was revised from the 2013 Attainment Report. Transit in rural areas provides critical services for long distance commuters, and those who do not have the option to drive a personal vehicle.



## Providing Transportation Choices

For most travelers, time and cost are the primary factors that influence mode choice decisions. Fortunately for Marylanders, an extensive urban and rural public transportation system, park-and-ride lots, ridesharing and other TDM programs, and bike and pedestrian networks provide many alternatives to driving alone.

The availability of commuting choices is particularly important in Maryland as Marylanders on average have one of the highest average commute times in the nation (in 2012 estimated at 31.9 minutes according to the U.S. Census Bureau's American Community Survey), congestion on the highway system in the AM and PM peak periods is significant in key commuting corridors, and the price of parking can be high, particularly in urban centers in the Washington and Baltimore regions. Many Marylanders regularly commute using an alternative mode, with a total of 25.7% ridesharing, riding transit, biking, walking, or telecommuting. This non-drive alone commute share is well above the national average. For example, in 2012, Maryland commuters chose transit the third most frequent of all states, with an average 8.9% transit commute to work mode share.

MDOT invests in projects and programs that support transportation alternatives throughout Maryland and partners with state, regional, local, and non-profit organizations to provide transit and TDM services and information. The Transportation Act provided

substantial support for a number of transportation alternative projects including a specific focus aimed at creating a connected and fully-integrated transit system across Maryland. The FY 2014–FY 2019 CTP includes an additional \$685 million in state funding for the Red Line, \$711 million in state funding for the Purple Line, a commitment of \$225 million for the Corridor Cities Transitway, \$12 million to add two additional weekday trips to MARC Camden Line service, \$12 million for commuter bus service additions, and an additional \$142 million to support Montgomery County Ride On, Prince Georges County 'The Bus', the Charm City Circulator, and other LOTS in Maryland.

Maryland continues to support biking and walking through investments in infrastructure and support programs, and through modifications to policies, such as to SHA's Complete Streets policy. MDOT has successfully continued the implementation of the two new programs it started in FY 2012 to enhance cycling in Maryland, as part of Governor O'Malley's Cycle Maryland initiative – the Maryland Bikeways Program and the Maryland Bikeshare Program. New bike facilities and Bikeshare stations opened throughout Maryland in 2013, with more projects on the way.

### Cycle Maryland

Governor O'Malley's Cycle Maryland initiative is an effort to encourage more Marylanders to get out and ride, and to make bicycling a true transportation alternative. As part of the Cycle Maryland initiative, MDOT kicked off the Maryland Bikeways and Maryland Bikeshare Programs in FY 2012. In 2013, Maryland was ranked 11th on the League of American Bicyclists' Bicycle Friendly States.

**Bikeways Program:** Awarded \$5.6 million in State funds to support nearly 50 local bike projects in 2011 and 2012. These projects include on- and off-road bicycle route connections, bike route signage, bike parking racks and safety improvements. In September 2013, Governor O'Malley announced an additional \$3.2 million in Bikeways Program Grants to fund 23 new projects. The FY 2014–FY 2019 CTP includes an additional \$6.8 million for future Bikeways Program grant awards.

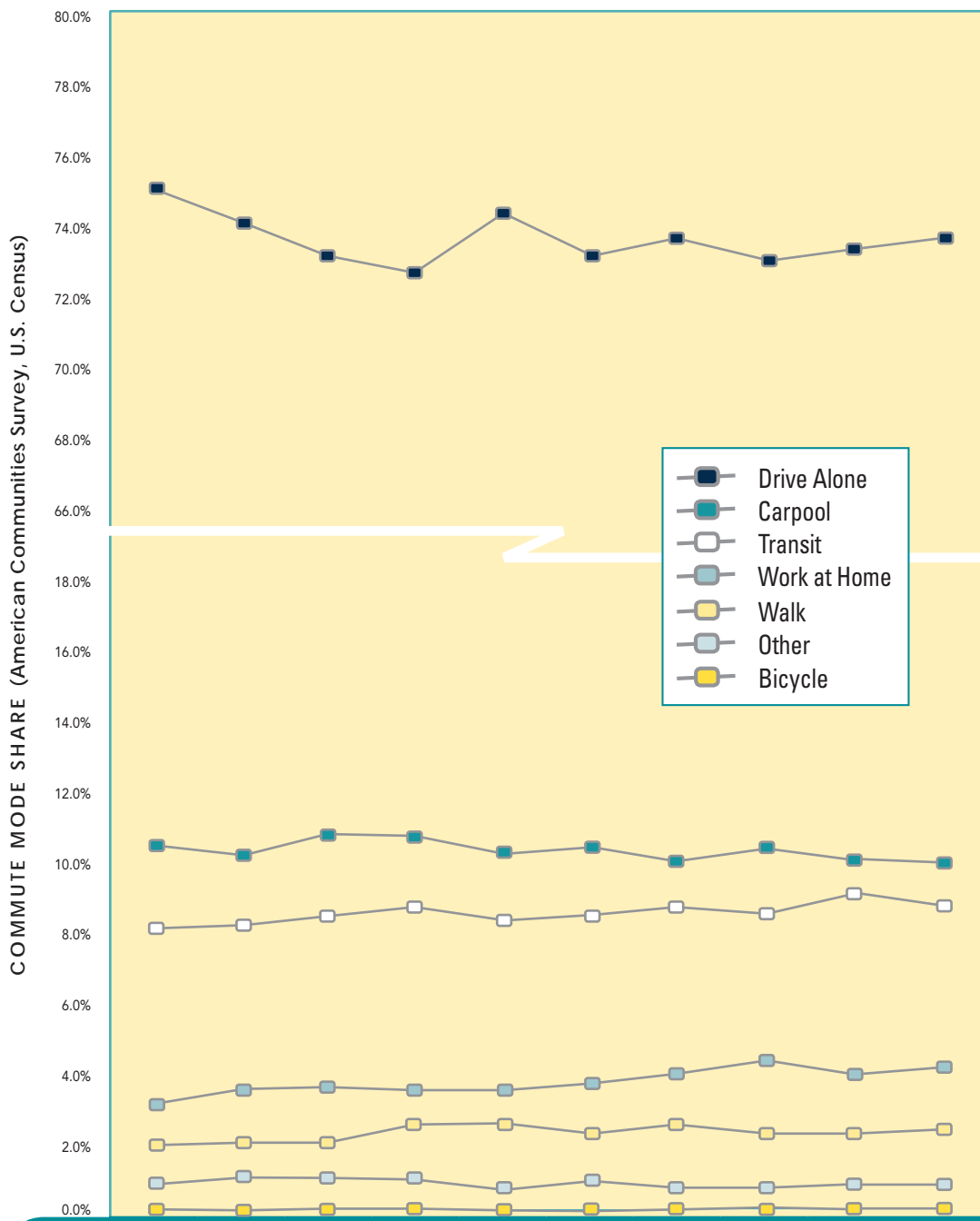
**Bikeshare Program:** Awarded \$2.5 million to study and implement bikesharing programs in Maryland. The funding supports implementation of bikesharing systems in Baltimore City, Montgomery County, and University of Maryland/City of College Park and feasibility studies of potential bikeshare stations in the City of Frederick, Howard County and Prince George's County/City of Greenbelt.

<http://www.washingtonpost.com/blogs/dr-gridlock/wp/2013/09/27/capital-bikeshare-arrives-in-montgomery-county/>

**Bike to Work Day:** SHA and MTA supported National Bike to Work Day and Bike to School Day activities.



# Mode Split for Maryland Commuters



|              | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Drive Alone  | 75.2% | 74.3% | 73.6% | 72.8% | 74.3% | 73.2% | 73.4% | 73.0% | 73.3% | 73.4% |
| Carpool      | 10.5% | 10.3% | 10.9% | 10.7% | 10.2% | 10.8% | 10.0% | 10.7% | 10.1% | 9.8%  |
| Transit      | 8.1%  | 8.3%  | 8.5%  | 8.8%  | 8.4%  | 8.5%  | 8.8%  | 8.6%  | 9.2%  | 8.9%  |
| Work at Home | 3.1%  | 3.6%  | 3.7%  | 3.6%  | 3.6%  | 3.8%  | 4.1%  | 4.3%  | 4.1%  | 4.2%  |
| Walk         | 2.0%  | 2.1%  | 2.1%  | 2.6%  | 2.6%  | 2.3%  | 2.6%  | 2.3%  | 2.3%  | 2.5%  |
| Other        | 0.9%  | 1.2%  | 1.1%  | 1.1%  | 0.7%  | 1.0%  | 0.7%  | 0.7%  | 0.9%  | 0.9%  |
| Bicycle      | 0.2%  | 0.1%  | 0.2%  | 0.3%  | 0.2%  | 0.3%  | 0.4%  | 0.2%  | 0.3%  | 0.4%  |

## Key Activities & Accomplishments to Promote Alternatives to Driving Alone

- 2001 to 2005** Frederick MARC Extension, Commuter Choice Maryland, Bicycle & Pedestrian Access Master Plan
- 2006** MTA Light Rail Doubletrack
- 2007** MARC Growth & Investment Plan, SHA Bike & Pedestrian Design Guidelines
- 2008** Southern Maryland Commuter Bus Initiative, BRAC Action Plan
- 2009** ARRA—LOTS, MTA, & WMATA Projects, Ongoing Park-and-Ride Lot Expansion
- 2010** Guaranteed Ride Home Expansion, Maryland TOD Designation, MTA Charm Card
- 2011** ICC Commuter Bus, MARC Penn Line Service enhancement, MARC Rail Car and Locomotive Replacement
- 2012** Maryland Bikeways and Bikeshare programs
- 2013** Transportation Infrastructure Investment Act, MARC Penn Line weekend service, implementation of Bikeways and Bikeshare programs



## Air Travel in Maryland

BWI Marshall has connected Marylanders and travelers to destinations throughout the U.S., as well as the rest of the world, for more than six decades. The MAA, the operator of BWI Marshall, focuses its resources and investment decisions on creating and maintaining BWI Marshall's "easy-come, easy-go" reputation. Airlines serving BWI Marshall provide Marylanders with access to 64 domestic non-stop destinations and nine international non-stop destinations. Customer satisfaction with BWI Marshall continues to improve, increasing by two percentage points this year, to 93%. Following their 2012 merger Southwest/AirTran continued to optimize schedules and strategically expand air services to/from BWI Marshall.

In each of the past two years, BWI Marshall has served more than 22 million passengers annually. In 2012, annual passenger traffic increased 1.3 percent over 2011, the third consecutive annual record for BWI Marshall. In early 2013, the effects of sequestration reduced travel demand, resulting in an anticipated 2% decline in total passenger traffic for 2013 compared to 2012. However, this decrease is expected to be temporary.

International passengers using BWI Marshall increased steadily over the first half of 2013, up 23.5% in fiscal year 2013 compared to the previous fiscal year. The growth was largely due to increased international service from AirTran in markets such as Aruba, Cancun, Montego Bay and Punta Cana, as well as Condor Airlines renewed seasonal service to Frankfurt, Germany.

BWI Marshall made several changes in 2013 to improve the airport and enhance customer services, including opening a new security checkpoint and a secure connector between Concourses B and C. Plans are currently underway to construct a new secure connector between Concourse D and Concourse E, create a new security checkpoint to serve domestic and international travelers and configure airline gates to support additional international flights. In April, the BWI Cardio Trail opened, which includes two marked walking paths inside the Airport terminal.

The MAA continues to support the general aviation future in Maryland at the 36 public airports throughout the State, which are supported by State funds totaling approximately \$384.80 million since 2002 (excluding federal funds and local airport funds). MAA 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. Together these airports serve the people and businesses of Maryland and the Mid-Atlantic region, making a strong positive impact upon Maryland's economy. In fiscal year 2013 BWI Marshall supported traffic of more than 22.5 million passengers and 112,298 tons of freight. Based on 2010 data, BWI Marshall's economic impacts for Maryland include nearly 94,000 jobs, \$3.6 billion in personal income, \$5.6 billion in business revenue, and over \$2.0 billion in local purchases.

## Total Annual Commercial Passengers at BWI Marshall Airport



\*2013 data is preliminary and subject to change.





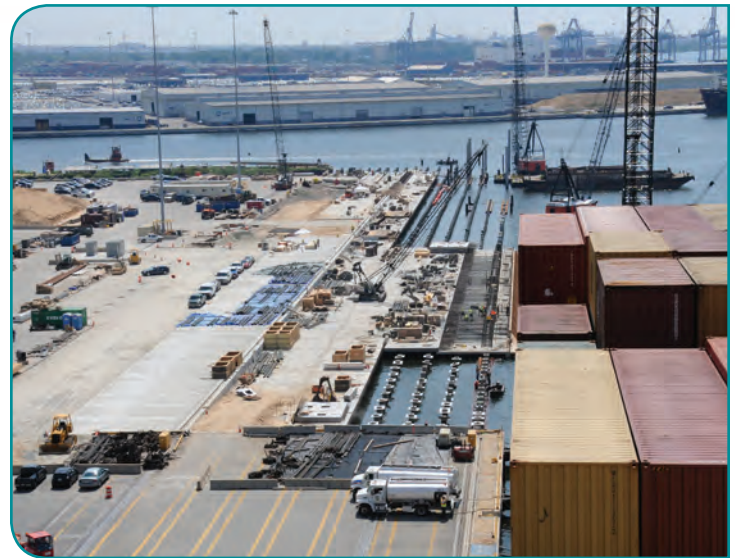
## The Port of Baltimore's Contributions to Maryland

The Port of Baltimore continues to adapt to meet the demands of a global economy and seizes opportunities for contributing to Maryland's economy. In the past year, Marylanders benefitted from a deeper and more efficient Seagirt Marine Terminal, which now includes a 50-foot-deep berth and four supersized container cranes. In 2013, the Port received a federal grant to increase its cargo handling capacity and provide rail access at its Fairfield Marine Terminal and had the extraordinary opportunity to host Vice President Joe Biden for a visit to the Port. Baltimore is one of two East Coast ports to have both a 50-foot-deep channel and 50-foot-deep berth to accommodate the opening of the Panama Canal to larger Post-Panamax cargo ships. This project, which is a partnership between the MPA and Ports America Chesapeake, is expected to generate up to \$1.8 billion in total investment and revenue for the State of Maryland over the life of the agreement. It also will create a total of 5,700 new jobs.

The Port of Baltimore's contributions to the economy of Maryland, the Mid-Atlantic, and nation, are significant. A 2011 study found that approximately 40,040 jobs in Maryland are generated by Port activity; of those, 14,630 are direct jobs. There are another 25,410 induced and indirect jobs generated by Port activity. There are over 68,000 jobs related, but not completely dependent on Port activity. In total, there are over 108,000 jobs linked to the Port. The Port is responsible for approximately \$3.0 billion in annual personal wages and salaries, and \$304.0 million in state and local tax revenues.

Additional accolades in 2013 include a top ranking amongst the 360 U.S. ports for handling autos and light trucks, farm and construction machinery, imported forest products, imported sugar, imported aluminum and imported gypsum. Baltimore ranks 2nd in the U.S. for exported coal, and imported iron ore. The Port of Baltimore now ranks 11th in terms of foreign tonnage and 9th in terms of dollar value.

In 2012, 240,800 people sailed on 100 cruises from Baltimore. Baltimore ranks 10th in the U.S. and 20th worldwide for most cruise passengers. The Port recently welcomed back Royal Caribbean's Grandeur of the Seas. Overall, cruising has a total economic value of \$90 million and 220 direct jobs in Maryland. This positive trend continues in CY 2013 with 91 cruises and six port-calls.



## Improving the Movement of Goods: Maryland Freight Activity

Freight activity in Maryland, which is a significant contributor to the Maryland economy, is expected to double by 2030. Continuing investments to the existing transportation system and the addition of selective new capacity, will assist goods movement and facilitate economic growth within the State. To address freight needs, MDOT is working to implement both short- and long-term multimodal freight solutions across the State.

MDOT and its partners are committed to implementing the key policy and investment solutions identified in the 2009 Maryland Statewide Freight Plan, and will implement additional measures as they are developed. MDOT also recognizes the larger regional and national factors affecting freight transportation. Important, and extremely expensive to address, freight transportation chokepoints in Maryland impact the entire Northeast Corridor. Through leadership in the I-95 Corridor Coalition and the Northeast Corridor Commission, as well as ongoing partnerships with neighboring states and CSX Transportation through the National Gateway Initiative, MDOT is participating in multistate solutions to these larger transportation issues.

### Key Freight Initiatives

- MDOT is supporting CSX and Baltimore City in the development of the Baltimore Rail Intermodal Facility at the CSX-owned Mount Clare Yard in southwest Baltimore. This facility will help secure the economic future of the Port of Baltimore and enable Maryland to realize the benefits of CSX's National Gateway Initiative as well as the widening of the Panama Canal.
- MDOT is partnering with the Maryland Department of the Environment (MDE) and the Maryland Energy Administration (MEA) by providing grant funding for the Idle Reduction Technology Grant Program. This MEA-administered program provides financial assistance for the installation and equipment cost associated with idle reduction technology on trucks. This will reduce commercial vehicle fuel consumption and air pollution.
- Maryland has a robust commercial vehicle enforcement and compliance program, ranking as the fourth best in the nation for 2012, according to the Federal Motor Carrier Safety Administration (FMCSA) website. The inspections promote that trucks run damage- and deficient-free on Maryland's roadways and that the professional drivers are operating safely as they share the roads with passenger cars.
- Maryland will continue to plan for and provide additional truck parking capacity across the State. Maryland is currently constructing 40 new truck parking spaces at the southbound welcome center on I-95 in Howard County. This increases the total number of spaces at this critical location from 20 to 60.

## Performance Measures

| MTP GOAL            | 2014 AR FREIGHT RELATED MEASURES   | PAGE |
|---------------------|--|------|
| Safety & Security   | (MVA/SHA/MDTA)—Annual number of traffic fatalities and personal injuries on all roads in Maryland                              | 14   |
| System Preservation | (SHA & MDTA)—Number of bridges and percent that are structurally deficient   | 20   |
|                     | (SHA & MDTA)—Percent of roadway miles with acceptable ride quality   | 20   |
| Quality of Service  | (MPA)—Average truck turn-around time at Seagirt Marine Terminal  | 32   |
|                     | (SHA)—Percentage of the Maryland SHA network in overall preferred maintenance condition  | 24   |
| Community Vitality  | (MPA)—Intermodal Containers moved by rail through the Port   | 46   |
|                     | (SHA & MDTA)—Percent of VMT in congested conditions on Freeways/Expressways/Arterials in Maryland during the evening peak hour | 46   |
| Economic Prosperity | (MPA)—Port of Baltimore foreign cargo and MPA general cargo tonnage  | 50   |
|                     | Freight originating and terminating in Maryland  | 48   |

## GOAL:

# Safety & Security



Enhance the safety of transportation system users and provide a transportation system that is resilient to natural or man-made hazards.

## Summary of Goal Achievement



## Objectives

- Reduce the number of lives lost and injuries sustained on Maryland's transportation system
- Provide secure transportation infrastructure, assets and operations for the safe movement of people and goods

Safety and security on Maryland's multimodal transportation system is a top priority for MDOT. Law enforcement, highway safety officials, transportation planners and engineers, and other safety advocates continue to support the Towards Zero Deaths (TZD) campaign. This effort is intended to change drivers' perception of safety, spreading the message that even one death on Maryland roadways is too many. To help meet this goal, SPIDRE (State Police Impaired Driving Effort) was launched this year. SPIDRE is an elite team of state troopers that are focused on reducing the number of alcohol-related crashes in Maryland. They do so using a combination of targeted DUI enforcement at high crash locations and education initiatives. In addition to targeting impaired drivers, Maryland began the Walk Smart! Campaign to educate pedestrians, drivers and school children about the importance of using crosswalks, following signals and exercising general street smarts. Both of these efforts are helping Maryland reach the State's TZD goal.

Maryland continues to be a leader in bicycle safety efforts. For the third year in a row, the Maryland Bikeways Program has awarded grants to local jurisdictions throughout Maryland for safety enhancement projects such as marking bicycle lanes and routes, and developing shared use paths. In 2012, SHA began conducting pedestrian safety audits along prioritized roadway segments. Working with local jurisdictions and stakeholders, SHA has utilized observational and crash data to help develop recommendations to address pedestrian and bicycle safety issues in each segment. SHA continues to enhance driver, cyclist and pedestrian safety in rural and urban areas through ongoing implementation of the Community Safety and Enhancement Program, New Sidewalk Construction for Pedestrian Access Program and Sidewalk Reconstruction for Pedestrian Access Program (ADA compliance). Outreach and educational efforts are taking place at a grass roots level as well as through formal bike and pedestrian safety campaigns.

A number of new transportation investments will be or are underway in the State as a result of the passage of the Transportation Infrastructure Investment Act (Transportation Act). One such project is the construction of a new roundabout at MD 822 (University of Maryland Eastern Shore Boulevard) and MD 675 (Somerset Avenue) in Princess Anne, Somerset County. The roundabout not only enhances vehicular safety, but pedestrian improvements will provide safer access to the University of Maryland Eastern Shore (UMES), which has approximately 4,500 students.

Security at the Port of Baltimore and BWI Marshall, and along Maryland highways and rail networks, is critical to goods movement in the State and safe passage for travelers. For the fifth consecutive year, the Port of Baltimore has received an excellent security assessment from the Coast Guard review. BWI Marshall has taken steps to accommodate passenger growth without compromising safety and security, initiating a three-year plan that will include construction of a new secure connector between Concourse D and Concourse E, and a new security checkpoint to serve domestic and international travelers.

## Key Initiatives

**MDOT:** MDOT's Maryland Bikeways Program continues to award grants to local jurisdictions that, amongst other benefits, enhance safety through projects such as marking bicycle lanes and routes and developing shared use paths.

**MAA:** Improvements to security will be made at BWI Marshall. A \$125 million three-year plan will include construction of a new secure connector between Concourse D and Concourse E, a new security checkpoint to serve domestic and international travelers, and additional international capable gates.

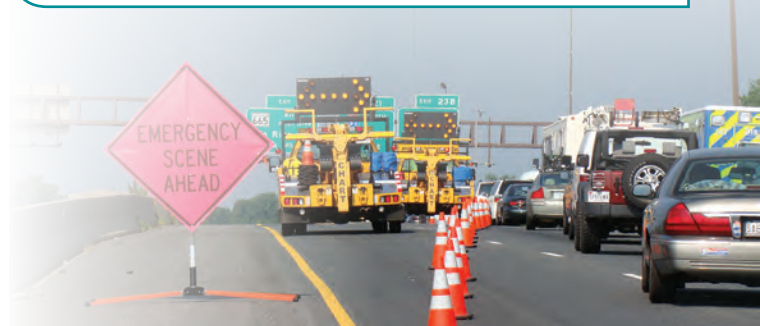
**MPA:** Continue to provide excellent security services at all MPA terminals, enhance security awareness through information analysis and dissemination with public and private institutions, and deploy new cost-effective risk management methodologies for the protection of facility assets.

**MTA:** Reconstructed the MARC Halethorpe Station, one of the five busiest stops on the Penn Line. The construction improved the speed and ease of using the station, but also included safety enhancements such as a pedestrian bridge, ADA-compliant sidewalks and ramps, and lighting.

**MDTA:** Initiated a detailed engineering study and crash analysis on the Intercounty Connector (ICC)/MD 200 to justify a speed limit increase from 55 mph to 60 mph. The crash analysis examined vehicular crashes for the ICC's first year of operations and confirmed that the speed limit may be safely raised. MDTA Police has implemented a four-prong security plan at the bridges and tunnels to deter, detect and defend against any criminal and/or terrorist attack.

**MVA:** Maryland implemented the first fully automated ignition interlock system. The MVA supported efforts to strengthen the Ignition Interlock Program laws, which went into effect Oct. 1, 2011. Maryland has the highest per-capita participation in Ignition Interlock on the East Coast. This program has been very successful in keeping repeat drunk drivers off the road. The number of participants has grown over the last four years from less than 5,000 in July 2009 to over 11,000 in June 2013.

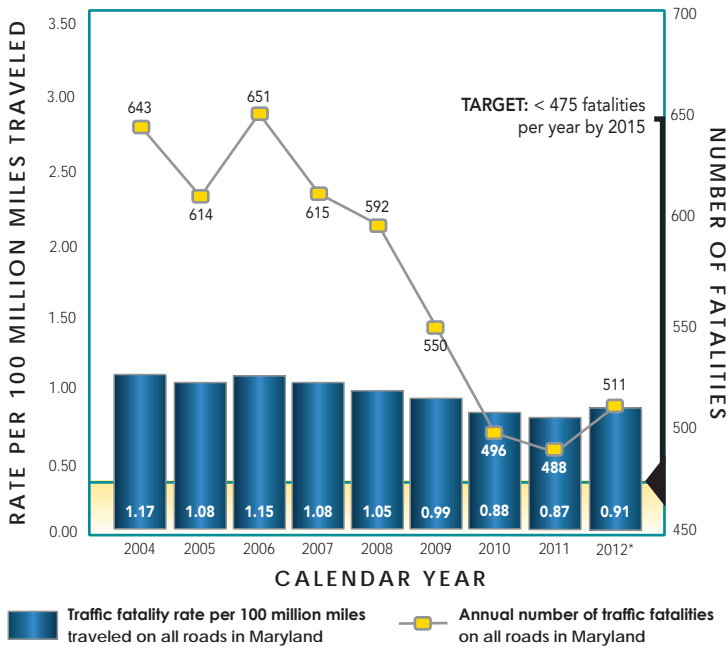
**SHA:** In partnership with the Town of Ocean City, Ocean City Police Department, and other local businesses and agencies, SHA launched the Walk Smart! Safety campaign. The goal of this campaign is to lower pedestrian fatalities and injuries in Ocean City, MD and ensure drivers and pedestrian are safe.



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

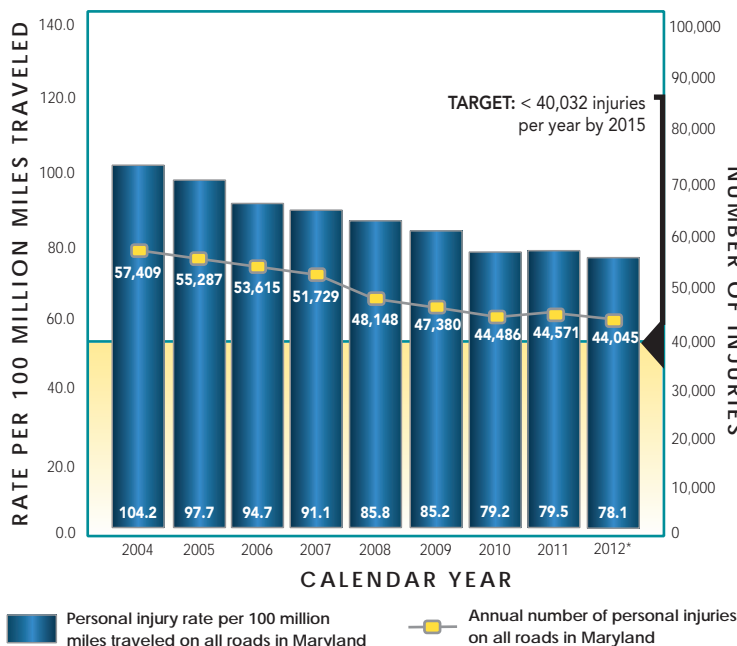
In line with international trends, Maryland uses reductions in the actual numbers of traffic fatalities and injuries as desired safety outcomes. Injury and fatality data help to assess the effectiveness of the Maryland Strategic Highway Safety Plan (SHSP) and to identify tendencies and trends that assist in implementing a wide variety of countermeasures tailored for rural and urban areas.

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



\*2012 data is preliminary and subject to change.

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



\*2012 data is preliminary and subject to change.

### Why Did Performance Change?

- Maryland's traffic fatality rate is lower than other states in the region and 22% below the national average
- Traffic fatalities are trending downward in a number of traffic safety program areas, including aggressive driving speed related crashes as well as roadway departure crashes
- Implemented new guidelines for installation of rumble strips to reduce roadway departure and head-on crashes
- Implemented pedestrian roadway safety audits to improve a data-driven approach to the selection, prioritization and programming of pedestrian safety enhancement projects
- The MVA enhanced preventative measures through Traffic Safety Initiatives (TSIs) which target specific, pre-identified collision areas and deploy an increased amount of police personnel for monitoring
- Maryland *SafeZones* automated speed enforcement program resulted in fewer aggressive drivers/speeders in work zones and contributed to the lowest number of work zone crash fatalities and injuries in more than 10 years
- The MVA coordinated several key high visibility enforcement (HVE) initiatives throughout the year to address critical traffic safety issues, including: *Smooth Operator*, *Checkpoint Strikeforce*, and *Click it or Ticket*

### What Are Future Performance Strategies?

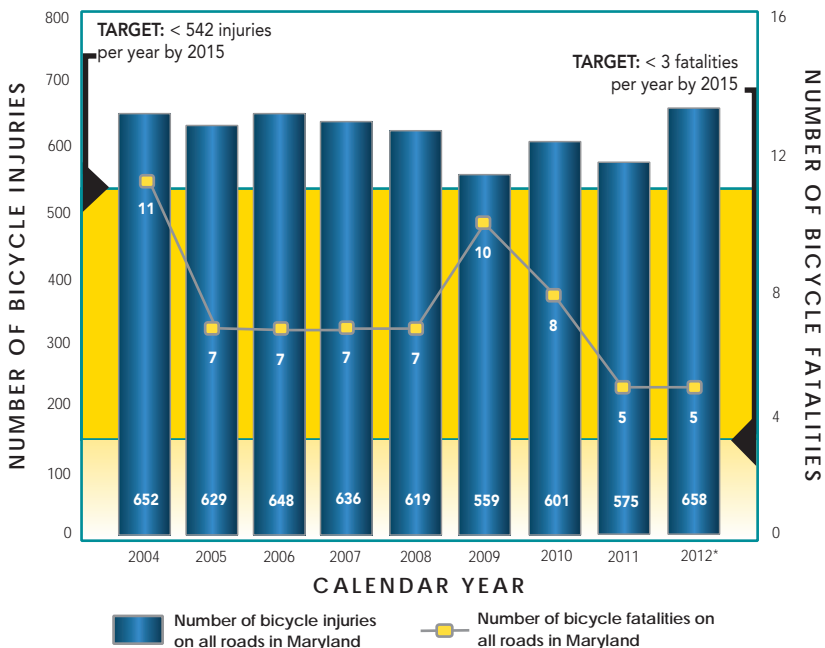
- The MVA will continue to implement the SHSP for the years 2011 to 2015
- Focus on six critical safety areas including: pedestrian safety, distracted driving, occupant protection, impaired driving and infrastructure
- Conduct eight road safety audits annually with preference at high-priority crash areas and continue to identify deficiencies and needed safety enhancements
- Continue to have all District Offices review fatal crash assessment and other safety reports and annually set performance targets to reduce numbers of crashes in over-represented categories
- Develop action plans in each District to address wet weather-related crash locations
- Develop and implement a comprehensive communications and marketing plan that addresses high-priority traffic safety issues
- Install Safety Edge technology at select locations to reduce road-departure incidents by reshaping roadway edges, thereby helping to eliminate vertical drop-offs and helping those drivers who leave the paved roadway to maintain control and recover safely
- MDTA and SHA will increase the number of virtual weigh stations in order to increase compliance with Federal Motor Carrier Safety Regulations and Maryland size and weight laws
- MVA will continually monitor the education and training of newly licensed drivers through monthly driving school audits. By reviewing and tracking any problems or infractions, the MVA will be able to continually improve the quality of the driver's education program and safety. In addition, MHSO will continue to develop safety programs to better educate the public regarding highway safety



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

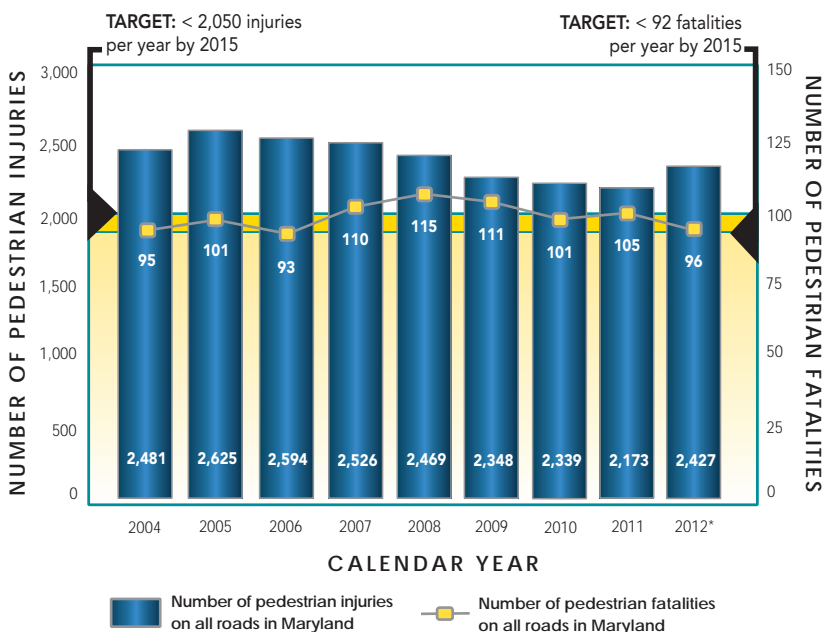
Maryland uses reductions in the actual numbers of bicycle and pedestrian fatalities and injuries as desired safety outcomes. Injury and fatality data help to assess the effectiveness of the Maryland SHSP and to identify tendencies and trends that assist in implementing a wide variety of countermeasures.

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



\*2012 data is preliminary and subject to change.

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



\*2012 data is preliminary and subject to change.

### Why Did Performance Change?

- Identified high crash locations across the State to focus additional engineering, enforcement and education efforts to improve pedestrian safety
- Established an official pedestrian safety committee/task force within SHA to develop a strategic approach to improve pedestrian safety around the State
- Although the overall number of bicycle and pedestrian injuries increased, the most severe injuries decreased from 2011 to 2012
- Implemented innovative engineering techniques to improve pedestrian safety in Ocean City and in various locations in Montgomery County, which are both areas of high bicycle and pedestrian volume and incidents. Implemented the recently adopted official Complete Streets policy for all SHA projects
- Continued to implement bicycle policy that mandates resurfacing projects to construct bicycle lanes, whenever possible, and for all projects to mark bicycle lanes if the space is available
- Began formulating pedestrian safety action plans in coordination with local government and community leaders in each of the eight high crash locations that have had audits previously performed (one in Ocean City, three in Langley Park, and four in various locations in Montgomery County)

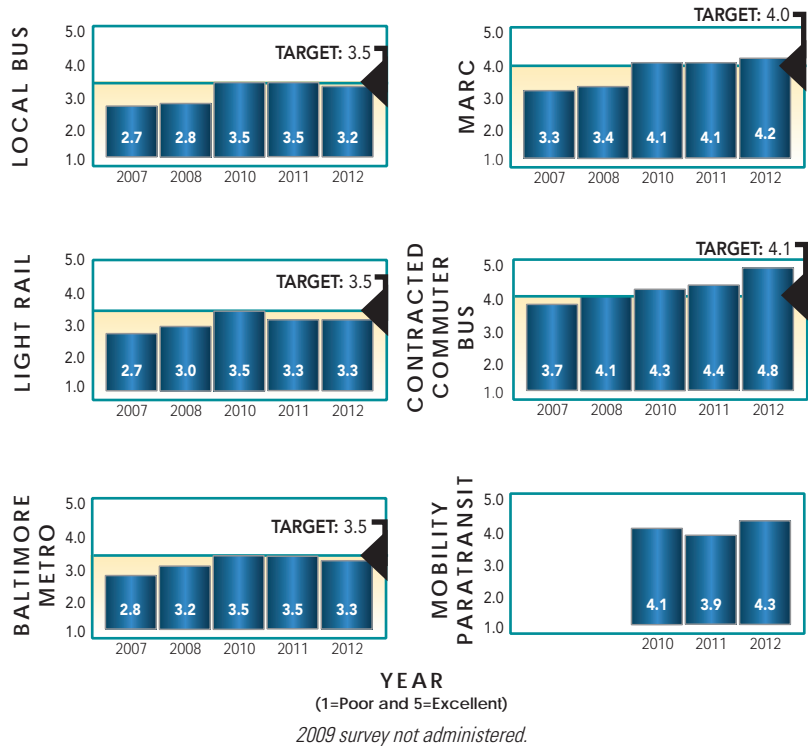
### What Are Future Performance Strategies?

- Conduct a pedestrian roadway safety audit on the top eight high pedestrian crash locations and work to fund the resulting audit recommendations
- Utilize social media to establish a more progressive form of communication between the bicycling community and SHA, for example this could include communicating important safety messages such as the location of current construction on roads used by bicyclists, the location of new bicycling facilities and new tools available that can help cyclists navigate their travels, such as a new bike map or mobile application
- Coordinate education and enforcement efforts with engineering efforts to more effectively improve pedestrian and vehicular behaviors in high crash locations
- Investigate innovative funding strategies for the implementation of pedestrian safety and implement strategies from the SHSP to enhance pedestrian safety



## 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?

- The FY 2013 survey results will be available in January 2014, and will therefore be published in the 2015 Attainment Report
- As MTA's crime rate continues to decrease, customers' perception of safety continues to increase. Transit Police deploy assets such as Command 1 and Skywatch to assist the K-9 and Visible Intermodal Prevention & Response (VIPR) teams in deterring terrorist acts and reducing crime. The efforts of the dedicated members of the MTA Police Force reflect the lowest crime in six of the nine crime categories - in 2012 there have been zero homicides, shootings, rapes or arsons
- Continued safety and security programs, such as the Zone Enforced Uniform Sweeps (ZEUS) and CompStat (a management process within a performance management framework that synthesizes analysis of crime and disorder data, strategic problem solving and a clear accountability structure)

### What Are Future Performance Strategies?

- Continue to utilize strategic Police programs to improve the visibility of MTA's Police Forces and make traveling safer
- Utilize CCTV and other security measures to ensure the safety of customers
- Target and prevent criminal activity through both covert and overt police operations, efficiently and effectively launched through the CompStat process (the FY 2014-FY 2019 CTP includes \$33.8 million in funding to enhance MTA's anti-terrorism and emergency preparedness processes, systems, law enforcement resources, and physical infrastructure)



## 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 | 2012 | 2013* | TARGET             |
|-----------------------------|------|------|------|------|------|------|-------|--------------------|
| Accident Rate               |      |      |      |      |      |      |       |                    |
| Local Bus                   | 2.50 | 2.50 | 2.93 | 2.86 | 3.10 | 1.77 | 1.77  | Reduce 2% Annually |
| Light Rail                  | n/a  | n/a  | 0.06 | 0.31 | 0.16 | 0.13 | 0.13  | Reduce 1% Annually |
| Baltimore Metro             | n/a  | n/a  | 0.20 | 0.17 | 0.05 | 0.04 | 0.04  | Reduce 1% Annually |
| Paratransit/<br>Taxi Access | n/a  | n/a  | 1.14 | 0.00 | 2.31 | 1.59 | 1.59  | Reduce 2% Annually |

(Baseline year = 2008)

\*2013 data is preliminary and subject to change.

### Why Did Performance Change?

- Implementation of the revised Bus Safety Performance Evaluation System (SPES) policy holds operators accountable for the accidents they are involved in, requires retraining after these accidents and corrective action/disciplinary actions associated with the accident based on a points system
- All MTA modes have experienced a decrease in preventable accident rates and are on target for meeting the CY 2013 goals
- Significant decreases in the Local Bus accident rate are due to ongoing efforts to increase operator accountability through retraining and corrective action
- Paratransit accidents are slightly higher over the past three years due to a change in how accidents are captured (including accidents from contracted service providers)

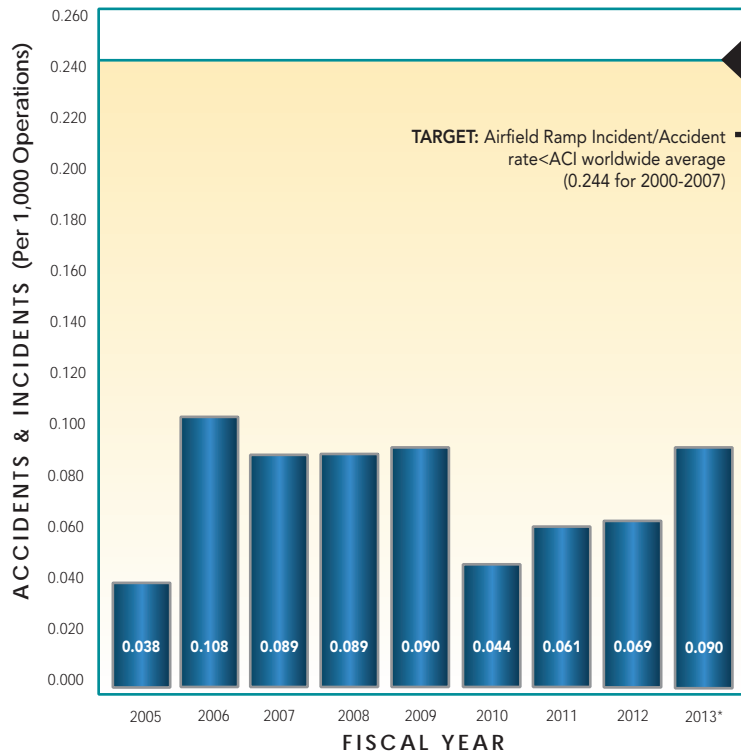
### What Are Future Performance Strategies?

- Continue accountability efforts to ensure that operators with multiple preventable accidents receive appropriate retraining and corrective action
- Utilize efficient and effective training methodologies, including the bus simulator, operator recertification programs, and safe operation awards, to give operators the skills they need to perform their duties safely
- Review accidents with the aid of geographic information systems (GIS) to determine patterns (i.e. operators, times of day, locations) and develop corrective action to further reduce accident risks



## 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.



\*2013 data is preliminary and subject to change.



### Why Did Performance Change?

- Rate of airfield incidents and accidents is consistently well below the average rate, as reported by Airports Council International (ACI)
- Held a monthly ramp safety meeting with the tenants at BWI Marshall to discuss safety on the ramp
- Monitored ramp incidents to determine if trends exist and make recommendations for improvements when needed
- Conducted training for employees with access to the ramp and taxiways, including driver training and movement area training

### What Are Future Performance Strategies?

- The Federal Aviation Administration (FAA) continues to work on a Notice to Proceed for Rulemaking for a Safety Management System (SMS) policy for airports. The final rule will be issued after receiving comments from U.S. airports regarding the SMS process
- Review every airfield incident to determine if changes need to be implemented to increase safety

## 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.



\*2013 data is preliminary and subject to change.

### Why Did Performance Change?

- BWI Marshall's actual number of crimes committed continues to be well below targets
- Utilized new technologies and integrated Consolidated Dispatch Center (CDC) systems with CCTV and Controlled Access Security (CASS) systems to monitor, record and respond to security and safety incidents
- Conducted security inspections (e.g., random inspections of airfield vehicles and employees by MDTA law enforcement personnel)

### What Are Future Performance Strategies?

- Continue to utilize CCTV to monitor, record and respond to security and life safety incidents
- Continue conducting TSA-required security inspections with MDTA law enforcement personnel (e.g., random inspections of airfield vehicles and employees entering/exiting the Sterile Area)



## 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 2013 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 FAA Part 139 safety and certification inspection
- Continue working with FAA to implement a pilot SMS program
- Continue efforts to achieve a 100% compliance with safety and certification requirements

## 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?

- Installation and/or enhancement of the CCTV system and engage in the statewide CCTV Interoperability System
- Complete enhancement of physical security measures at the South Locust Marine Terminal
- Introduce Portable and Fixed Transportation Worker Identification Credential (TWIC) Readers at terminal access points
- Deploy state-of-the-art technologies to secure MPA cargo terminals against unauthorized intrusions (\$2.8 million in funding is included in the FY 2014–FY 2019 CTP to support continued implementation of the Terminal Security Program)
- Participate in maritime and homeland security initiatives with federal, State and local Port partners
- Coordinate joint enforcement initiatives with federal, State and local law enforcement partners

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

The federal REAL Identity Act provisions for secure licensing and IDs (REAL ID) 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. Currently, Maryland does require proof of lawful presence in the U.S. due to legislation enacted in 2009. 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. In December 2012, MD was one of 13 states to be granted full compliance status by the Department of Homeland Security. As of August 2013, the MVA has achieved an 87% Full Compliance rate, meaning 34 of the 39 benchmarks have been successfully accomplished and once all federal systems become fully implemented, MD will work to achieve all 39 benchmarks. The MVA continues to implement technical and program enhancements as they become available by the federal government, in partnership with American Association of Motor Vehicle Administrators (AAMVA), in an effort to maintain full compliance which was approved by acceptance of all benchmarks in January 2013.

### What Are Future Performance Strategies?

- Continue to 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
- Continue to proactively develop and implement policies, procedures and technologies to maintain the MVA's Real ID status which was approved in January 2013
- Administer and support legislation and regulations that require individuals to provide proof of lawful presence in the U.S. for issuance of a fully compliant driver's license and ID card
- Execute federal and State funds to enhance the integrity and security of State-issued driver licenses and identification cards
- Continue to implement technical and program enhancements as they become available by the federal government, in partnership with the AAMVA
- With the passage of the 2013 Maryland Highway Safety Act (SB715) legislation, the MVA will begin in January 2014 to offer undocumented residents of Maryland the opportunity to receive a driver's license or ID card. These licenses will have a special restriction code that prohibits using this product for federal identification purposes such as flying on an airplane or entering a federal facility



## GOAL:

# System Preservation



Preserve and maintain the State's existing transportation infrastructure and assets.

## Summary of Goal Achievement



## Objective

- Preserve and maintain State-owned or supported roadways, bridges, public transit, rail, bicycle and pedestrian facilities, port, airports, and other facilities in a state of good repair

Maryland's extensive multimodal transportation system was developed over many generations through the sustained investments of millions of taxpayers. It provides for the movement of people and goods and enables Maryland residents to enjoy a high quality of life. Maryland's Modal Administrations use asset management principles to identify and prioritize investments that extend the useful life of existing transportation facilities before undertaking costly capacity expansion projects. Preserving the existing infrastructure is MDOT's first budgetary and planning priority as evidenced by the \$1,062 million allocated in FY 2014 for system preservation projects and programs.

Maryland is making significant investments to rehabilitate bridges, resurface roads and runways, overhaul and replace rail cars, and replace buses. The SHA and MDTA continue to reduce the number of structurally deficient bridges on the State's highway system decreasing the number of State-owned structurally deficient bridges to its lowest number ever, since measurement started. Major bridges as well as many smaller bridges, particularly ones in rural areas providing critical linkages to communities, are planned to undergo preservation activities in the FY 2014–FY 2019 CTP. SHA also maintains operation of traffic signal systems on Maryland state roadways. Each year, SHA continues to provide battery back-up installation for a designated list of locations. At the close of FY 2013, SHA now has 389 identified high risk signals with battery back-up installed, which represents nearly 40% of the signals at high risk for failure.

In addition, the MTA is planning to overhaul 63 MARC III coaches, performing a mid-life overhaul on the entire Light Rail fleet and repairing and replacing the Metro Signal System. Both MPA and MAA are rehabilitating critical infrastructure at the Port of Baltimore and BWI Marshall to ensure continued reliable and safe use of these facilities by public and private users.

## Key Initiatives

**MDOT:** Continue to fund system preservation needs in the Consolidated Transportation Program (CTP) at \$850 million.

**MAA:** Continue the Pavement Management Program improvements, other airfield pavement reconstruction at BWI Marshall by addressing pavement rehabilitation needs and new Federal Aviation Administration (FAA) runway safety area standards (the FY 2014–FY 2019 CTP includes \$232.0 million in funding for these improvements through 2016).

**MPA:** Significant MPA system preservation projects include reconstruction of Dundalk Berth 4, demolition of antiquated stern ramp at Dundalk; and a TIGER Grant project to fill and develop Fairfield Ship Basin to avoid costly bulkhead replacement.

**MDTA:** Continue to make needed preservation improvements to all facilities, including resurfacing travel lanes, rehabilitating and painting of bridges, and upgrading signs and lighting. Critical links in Maryland's transportation system, including the Chesapeake Bay Bridge (US 50), the Hatem Bridge (US 40), the Millard Tydings Bridge (I-95), and the Governor Harry W. Nice Bridge (US 301), are all planned to undergo preservation and maintenance activities in the FY 2014–FY 2019 CTP.

**MTA:** Continue system maintenance of Light Rail grade crossings and Baltimore Metro track infrastructure repairs and signal system replacement to maintain safe, reliable operation.

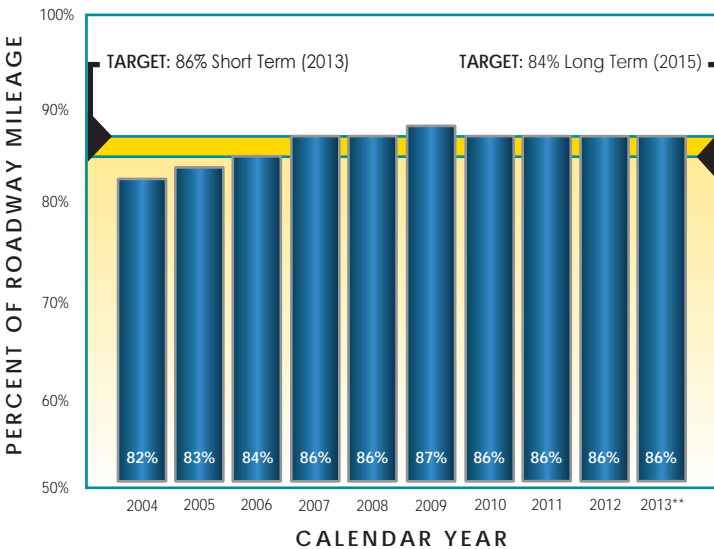
**MVA:** Continue to invest in information technology, including the Project Core enterprise system which will modernize, standardize and integrate core MVA business systems, and the Alternative Service Delivery (ASD) systems, to maintain cost-efficiencies. In addition, MVA continues to invest in its branch offices in order to maintain customer facility satisfaction and improve customer flow and ease of access to MVA's in-person services.

**SHA:** Maintain programs to reduce the number of SHA-owned bridges that are structurally deficient through intensive maintenance, preservation and rehabilitation efforts, as well as replacing deficient bridges that cannot be corrected by remedial efforts. As of April 2013, SHA had reduced the total number of SHA-owned structurally deficient bridges to 87 out of 2,572 bridges statewide. On the National Highway System in Maryland, there are 41 structurally deficient bridges out of a total of 1,434 bridges.



## 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.



\* Ride quality is represented by the International Roughness Index (IRI). The SHA inventory of mainline directional miles, which is a component of this measure, now include routes of less than one mile in length so that the SHA network is more accurately and completely represented.

\*\*2013 data is preliminary and subject to change.

### Why Did Performance Change?

- Continued focusing on improvement in roadways with deficient ride quality while beginning to focus attention on tracking other performance measures in anticipation of MAP-21 rulemakings on nationwide performance measures
- Values from 2004 through 2011 were updated to reflect the SHA inventory of mainline directional miles, excluding ramps, but now including routes less than one mile in length so that the SHA network is more accurately and completely represented
- Continued implementation of SHA operations and business plan strategies designed to effectively maintain ride quality with limited resources
- Continued identification of cost-effective projects in high demand SHA highways
- MDTA implemented further improvements to the annual inspection program and implemented an aggressive System Preservation program
- MDTA continued to use pavement preservation treatments where needed to address ride quality and extend the service life of the MDTA roadway network

### What Are Future Performance Strategies?

- Increase the use of more durable materials in high demand SHA roadways
- Continue to expand the use of recycled materials (e.g., concrete, asphalt) in SHA roadway projects in a responsible manner
- Continue to implement the Federal Highway Administration and SHA Pavement Preservation Program that will strategically utilize system preservation activities
- Target low surface friction locations on SHA roadways
- MDTA will develop network condition, budget and treatment reports to address the “best value for money” by treating pavements before they fall below acceptable ride quality levels

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

The structurally deficient rating is an early warning sign for engineers to initiate the rehabilitation or replacement process and to use when prioritizing and recommending system preservation funding. 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. The agencies place a high priority on bridge programs, as impassable bridges can cause significant rerouting of traffic and congestion delay and in rural areas, closed bridges can create significantly longer travel distances for rural communities’ daily activities and commutes.

| CALENDAR YEAR     | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------|------|------|------|------|------|------|------|------|
| Number deficient  | 145  | 132  | 133  | 117  | 111  | 110  | 101  | 88   |
| Percent deficient | 5.2% | 4.7% | 4.7% | 4.1% | 3.9% | 3.9% | 3.5% | 3.0% |

TARGET: Less than 105 total bridges by 2013



### Why Did Performance Change?

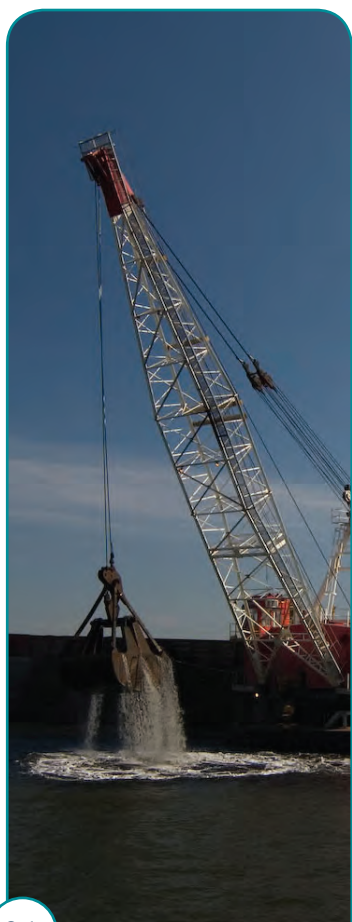
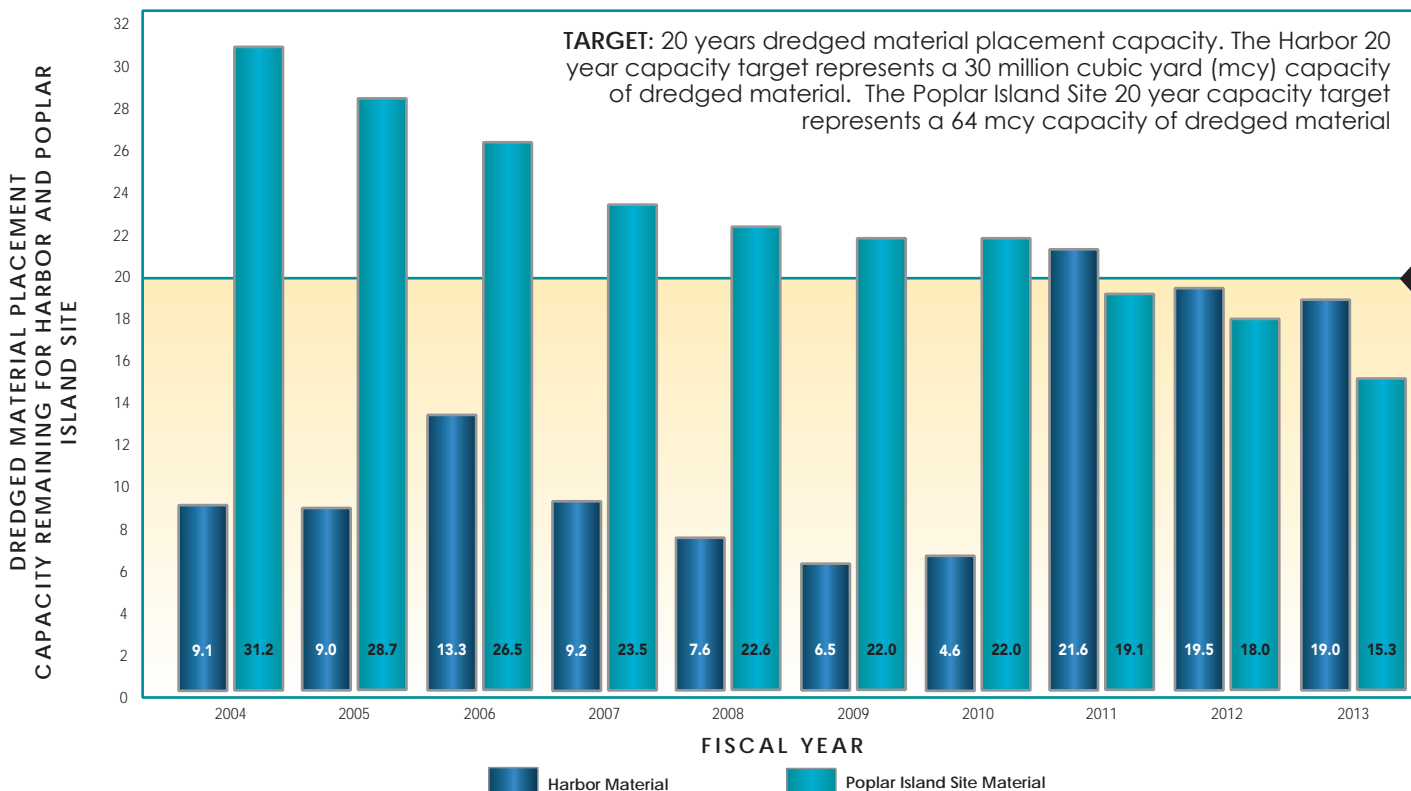
- SHA addressed bridges that were deficient, minimized the number of bridges that may become deficient and created plans to replace deficient structures that cannot be corrected by remedial work
- SHA substantially increased funding for bridge rehabilitation and reconstruction beginning in FY 2011 and has continued to efficiently utilize all funding in a cost effective and timely manner
- MDTA continued to deliver high-priority system preservation projects, such as underwater repairs at Hatem Bridge (US 40) and Tydings Bridge, multi-facility structural steel painting projects and cable rewinding and dehumidification on the Bay Bridge
- Continued an aggressive bridge rehabilitation program, which made improvements to three structurally deficient bridges, leaving one structurally deficient (Canton Viaduct), which will begin rehabilitation in FY 2016

### What Are Future Performance Strategies?

- Perform immediate structural evaluations on SHA water crossings after local storm events in the area of the storm
- Prioritize SHA projects in order to reduce the number of weight postings and the number of bridges with existing weight restrictions that must have their weight restriction lowered
- Evaluate and monitor those SHA bridges with at least one of three main elements rated a five
- Conduct bridge rehabilitations in rural areas of Maryland, particularly on critical freight corridors, including I-68 through Cumberland, MD 261 in Calvert County, MD 287 and MD 331 bridges over the Choptank River in Caroline County, and I-70 and I-81 bridges in Washington County
- Maintain and repair bridges on MDTA operated facilities throughout Maryland (over \$478 million in funding programmed in the FY 2014–FY 2019 CTP for major bridge rehabilitation activities)

## MPA: Dredged Material Placement Capacity Remaining for Harbor and Poplar Island Sites

MPA is responsible for obtaining dredged material placement sites. This performance measure has been revised and is not comparable to previous harbor and bay dredging measures reported in the Attainment Report.



### Why Did Performance Change?

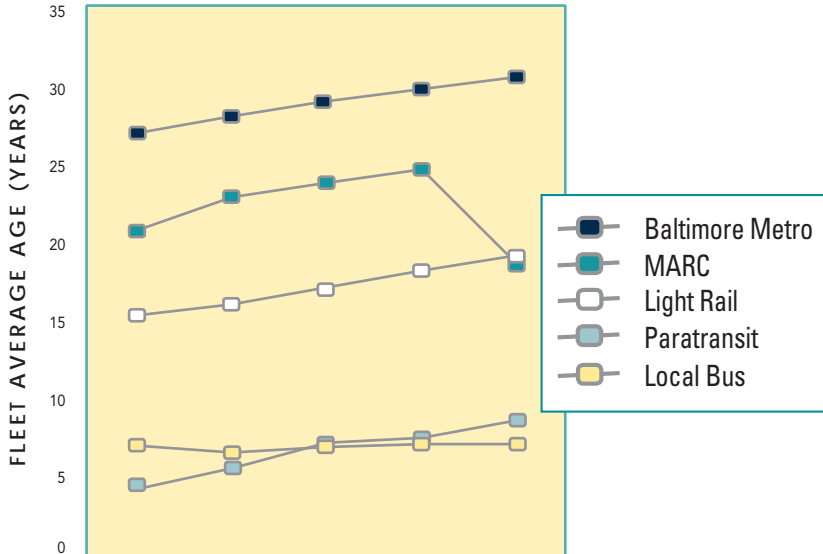
- Safety and mobility efforts to ensure unimpeded shipping access to the Port have been effective. The Port of Baltimore is one of only two U. S. East Coast ports with a 50' deep channel
- The State's Dredged Material Management Program (DMMP) continued to support the Corps of Engineers' DMMP and Mid-Chesapeake Bay Island feasibility studies by providing expert technical and citizen's committee guidance, review and evaluation based on scientific techniques developed for the State's DMMP
- Dredged material capacity at placement sites is being consumed faster than new capacity can be brought online. Over the long term, only maintenance dredging of Harbor channels can be accommodated without overloading existing placement sites. New private sector dredging work for channel improvement in the Harbor is being considered for placement in MPA sites on a case by case basis; an additional placement site is needed to accommodate long term demands without overloading sites
- On average, there are 0.7 million cubic yards (mcy)/year of Harbor maintenance dredging and 0.8 mcy/year of new work dredging in the Harbor to make improvements to the channel system

### What Are Future Performance Strategies?

- Manage an effective dredging program to maintain and improve the shipping channels for safe, unimpeded access to the Port by ensuring adequate placement capacity is available to meet dredging demand, removing access channel restrictions and improving the navigation system
- Maintain outreach program to communities, local jurisdictions, regulatory agencies, maritime and other harbor interests in order to facilitate the DMMP and development of new placement sites
- Acquire additional property at Coke Point to construct a dredged material containment facility
- Continue with strategic communication plan for dredged material placement process, and public communication of actions leading to prioritization and ultimate recommendation for construction of placement sites and options
- Work with Legislative delegation to ensure Corps of Engineers' funding is adequate to meet their authorized obligations for channel maintenance
- Assist, where possible, to reactivate Corps of Engineers' placement sites at Courthouse Point and Peace Creek to provide additional capacity
- Continue to evaluate innovative reuse of dredged 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 and width (the FY 2014–FY 2019 CTP includes \$608 million to implement the Governor's Strategic Plan for Dredged Material Management, which will help maintain shipping channels)

## MTA: Average Fleet Age of Transit Revenue Vehicles\*

The average fleet age of revenue vehicles is used to understand the status and age of the fleet used to transport patrons. Calculating fleet age informs the agency of the age of vehicles used in revenue service indicating fuel consumption, energy efficiencies, preventative maintenance needs and repair expectations.



|                 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------|------|------|------|------|------|
| Baltimore Metro | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 |
| MARC            | 20.8 | 22.9 | 23.6 | 24.6 | 18.7 |
| Light Rail      | 15.3 | 16.3 | 17.3 | 18.3 | 19.3 |
| Paratransit     | 4.9  | 5.9  | 6.8  | 7.5  | 8.5  |
| Local Bus       | 7.3  | 6.6  | 6.9  | 7.1  | 7.1  |

### Why Did Performance Change?

- Continued with investments in renewal of aging infrastructure for all of MTA's modes, including annual bus procurement to replace vehicles in service for 12 or more years
- Completed 34 MARC IIB coach overhauls extending the vehicles life cycles
- Acquired 63 new hybrid diesel-electric buses that are now in operation

### What Are Future Performance Strategies?

- Overhaul MARC railcars and procurement of new diesel locomotives and railcars in accordance with manufacturer's schedule of retirement to maintain a state of good repair
- Continue with ongoing mid-life inspection and renovation of Light Rail fleet to ensure vehicle reliability and useful life
- Procure replacement vehicles and equipment repair for Metro Rail and Mobility Paratransit for service expansion and vehicle replacement
- Maintain the average age of the bus fleet (MTA bus procurement activities have programmed over \$222 million in the FY 2014–FY 2019 CTP)

**TARGET\*\*:** Average fleet age of 6 years for the Local Bus system

\*This is a new measure not previously reported in past Attainment Reports.

\*\* Rail cars do not have a target for the fleet age as rather than replacing cars the vehicles are often overhauled, replacing or updating key components.



## GOAL:

# Quality of Service



Maintain and enhance the quality of service experienced by users of Maryland's transportation system.

Facing Challenges

## Summary of Goal Achievement



## Objectives

- Increase the efficiency of transportation service delivery through the use of systems, processes, partnerships, technologies and improved service delivery methods
- Maintain and enhance customer satisfaction with transportation services across modes
- Seek to maintain or improve travel reliability for key transportation corridors and services
- Continue to apply enhanced technologies to improve the transportation system and to communicate with the travelling public

For travelers living in, traveling through, and doing business in Maryland, quality of service means that Maryland's transportation system and services are reliable, comfortable, and convenient. A reliable and convenient transportation system contributes to a strong economy and high quality of life by reducing delay, offering multiple transportation options and providing up-to-date information about the operation of Maryland's transportation system.

Excellent customer service, particularly for users of Maryland's toll facilities, transit systems and BWI Marshall, is another critical objective of enhancing quality of service. The MVA offers an ever-increasing number of online MVA services, including online State Identification (ID) card renewal, and provides information on wait-times at MVA service centers. MAA continues to improve BWI Marshall through investments in airport facilities such as new terminal space and improved security screening areas that will improve the passenger's overall experience.

MDOT modal agencies continuously and strategically invest in programs and projects that enhance the condition and operation of the transportation system. This includes maintenance of our roadways and transit facilities, improved tracking of transportation system performance to help inform allocation of resources and assist in customer service training, and more options for high-speed electronic tolling on Maryland's toll facilities.

## Key Initiatives

**MDOT:** Convene Local & Regional Transportation Funding Task Force to identify potential local and regional transportation funding sources for local roads, bridges and transit to support high-quality service across Maryland's transportation system.

**MAA:** Improve BWI Marshall facilities and customer service through adding next bus technology at bus stops in BWI Marshall's parking lots, and enhancing the terminal building with projects such as the planned new security checkpoint for Concourses D and E, and the new connector between the two concourses.

**MPA:** Continue investment in technology enhancements and optimize use of the Transportation Worker Identification Credential (TWIC) program to reduce waiting times at terminal gates and improve overall processing efficiency and security for trucks loading and dropping-off cargo at Seagirt Marine Terminal.

**MTA:** Continue to invest in communication technologies to support State of Good Operations, including expanding the use of Automatic Vehicle Locator (AVL) technology to provide MTA's customers with real-time arrival information and to assist MTA in better monitoring on time performance.

**MDTA:** The extension of "Stop In Center" hours and targeted outreach allows for MDTA to connect with more customers. Expanded use of *E-ZPass*® is expected with the planned opening of the I-95 express lanes and the conversion of the Hatem Bridge (US 40) and Francis Scott Key Bridge to all electronic tolling.

**MVA:** Within the major metropolitan branch offices, the MVA is converting lesser-used vehicle services workstations to the higher-demand driver's license workstations. This will result in more efficient customer flow and reduced customer wait times. In addition, the MVA will be offering additional alternative service delivery options for its driver services and products. Of note, the MVA is exploring the option to make voluntary appointments available within 2014 for new, never before licensed Maryland drivers.

**SHA:** Continue to enhance traveler information to better serve mobile device users and commercial vehicle users through the Maryland 511 traveler information service and the Coordinated Highways Action Response Team (CHART) website. Continue the use of social media platforms as online focus group feedback to gauge customer preferences regarding SHA services, website and other business functions.

## 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 a four out of five rating.

| CALENDAR YEAR* | 2006 | 2008 | 2010 | 2012 |
|----------------|------|------|------|------|
| Rating         | 3.93 | 3.90 | 3.94 | 3.92 |

**TARGET:** 4 out of 5

\* Survey administered biennially.

### Why Did Performance Change?

- Improved customer service training for SHA staff through online awareness core course and developed advanced course curriculum through local community college
- Modified Customer Service “Bill of Rights” to serve as internal and external best practice in December 2012
- Developed and tested online Customer Care Management System (CCMS) survey linked to service requests close out emails, the CCMS is a tool for timely feedback on specific issues that enables SHA to respond quickly to make needed improvements
- Created and launched a Facebook page and enhanced the use of social media platforms to reach customers in different venues than traditional media
- Connected portable Closed Circuit TVs (CCTVs) in CHART incident management vehicles to enhance in-field information during emergencies and incidents where permanent cameras are not available

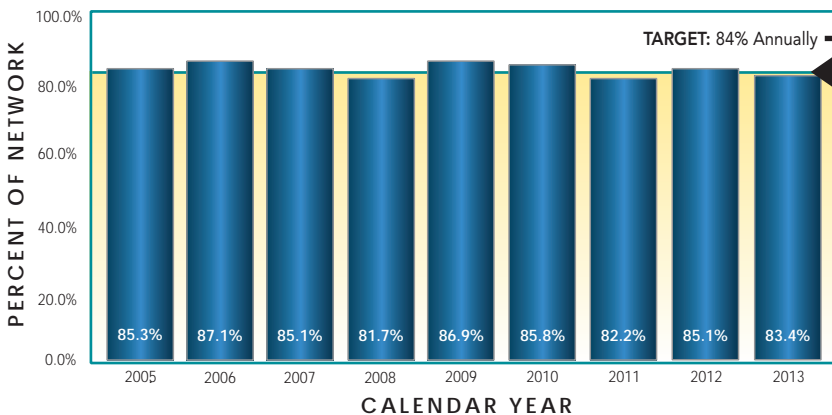


### What Are Future Performance Strategies?

- Develop dashboards for Customer Care Management System survey and incorporate data use in business process and customer service enhancement
- Add more electronic signs to communicate with drivers, as well as more cameras to monitor traffic
- Conduct biennial driver survey and share results with business units for action plans
- Use social media platforms as online focus group feedback to gauge customer preferences regarding SHA services, website or other business functions
- Enhance 511 system to better serve mobile device users and commercial vehicle drivers

## 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?

- SHA received approval for federal funding for FFY 2013 for the line striping asset management program
- Despite an additional \$1 million in Operating Funds spent over the prior fiscal year, and the supplemental funding from FHWA, the level of service for line striping dropped to a five-year low, however, SHA expects that the majority of striping that did not initially meet the desired maintenance condition will undergo improvements so that it meets the condition by the completion of CY 2013
- The effect of Hurricane Sandy was evident in the reduced level of service for brush and tree maintenance, as well as many drainage-related maintenance activities
- Progress has been made toward improving the level of service for pavement markings and lighting
- Total maintenance expenditures have been closer to the average historical amounts for the past two years, after the prior two consecutive years of expenditures were approximately \$9 million below average

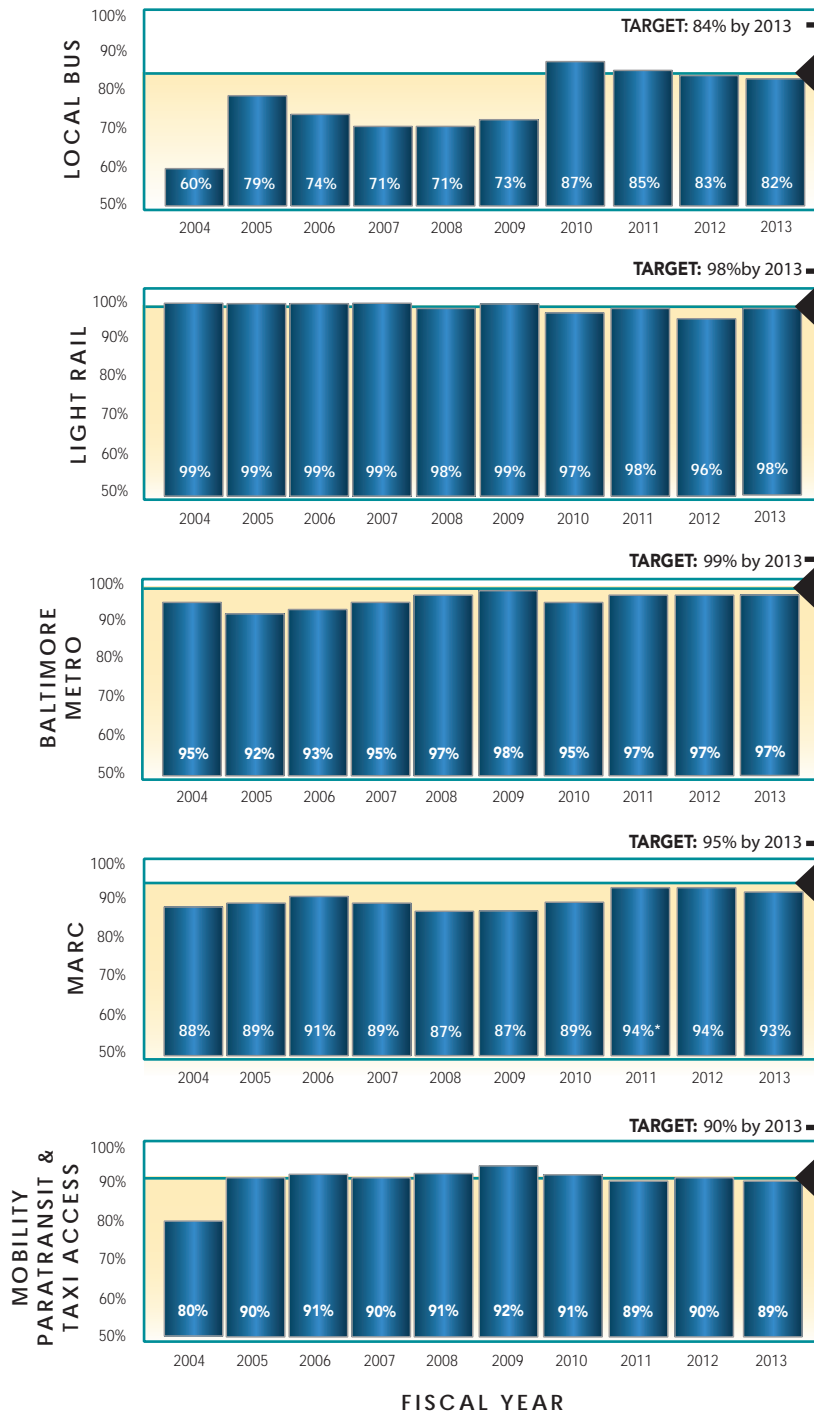
### What Are Future Performance Strategies?

- Continue to maintain the statewide overall level of service while working on individual assets that fall below the desired maintenance condition in specific areas
- Perform maintenance on safety-related activities such as signs, line striping, pavement markings and guardrail repair as a top priority
- Seek federal funding for additional maintenance activities as part of an asset management program approach to performing work
- Continue efforts with FHWA funding of the line striping asset management program by advertising and awarding contracts
- Continue to focus attention on maintenance activities that improve water quality as part of the Clean Water Act



## MTA: Percent of Service Provided On Time

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



### Why Did Performance Change?

- Invested in Local Bus AVL system to obtain a more accurate picture of Local Bus performance, allowing for better decision making and service monitoring
- Light Rail was able to maintain a 97% OTP while experiencing several challenges including service interruption from severe storms and major construction projects
- Metro experienced delays due to necessary track and system maintenance

### What Are Future Performance Strategies?

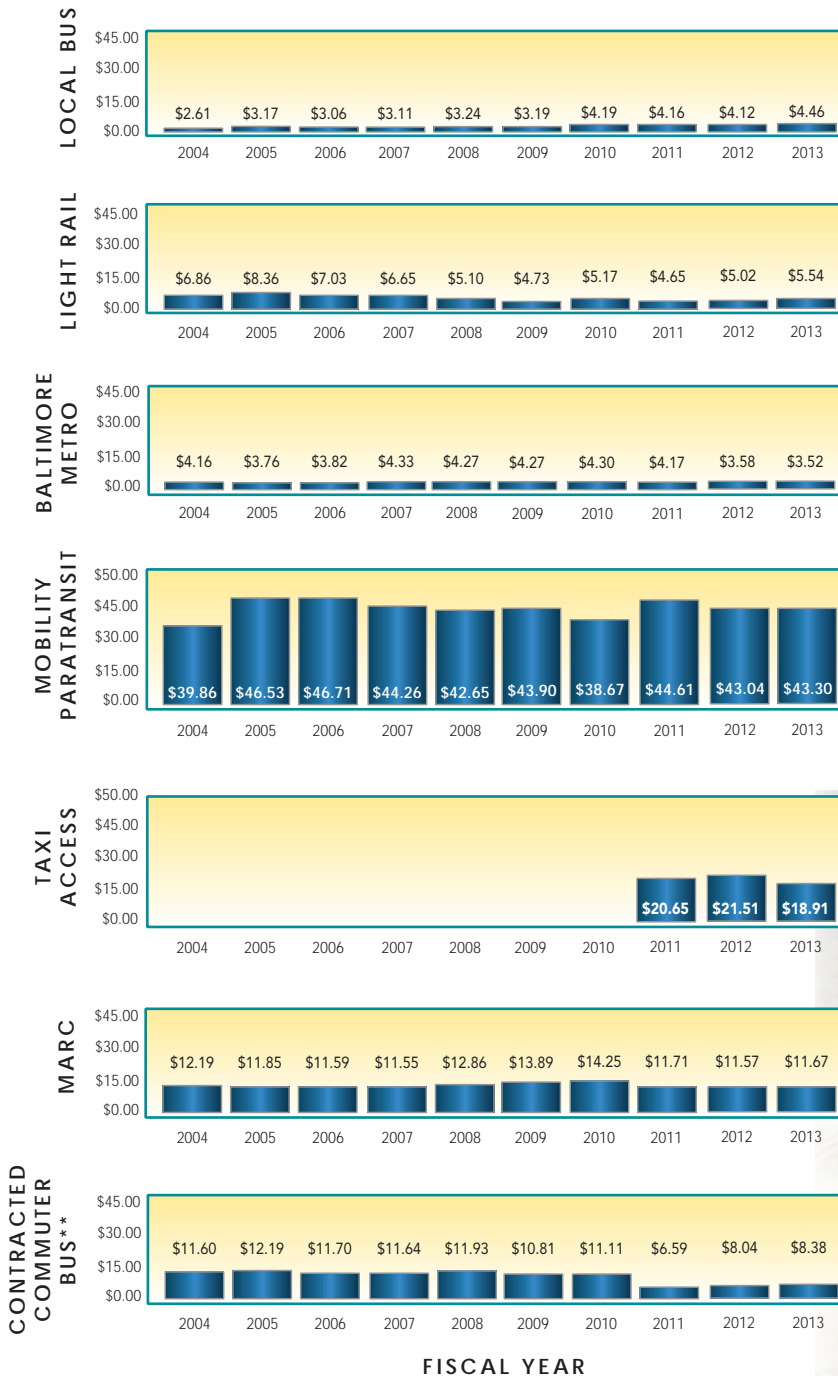
- MTA is currently in the Request for Proposals (RFP) process for a system upgrade dubbed BusUSA with an estimated completion date of CY 2015. This system upgrade will provide a multitude of operational enhancements including improved radio and Global Positioning System (GPS) coverage for increased fleet management and OTP
- Continue bus fleet replacement, reducing breakdown frequency and improving fleet reliability
- Address absenteeism and operator unavailability issues to improve OTP as well as service efficiency
- Continue aggressive monitoring of MARC-contracted operations and pursue infrastructure and schedule improvements that will benefit MARC riders
- Upgrade signal systems, track interlockings and passenger amenities on the MARC Camden, Brunswick and Penn lines (\$134 million in funding from joint capital improvement agreements between MTA, Amtrak and CSX programmed in the FY 2014–FY 2019 CTP)
- MTA is overhauling its Light Rail cars to improve fleet reliability and service efficiency (the FY 2014–FY 2019 CTP includes \$174.6 million to perform a mid-life overhaul of the Light Rail fleet)



## 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.

OPERATING COST PER PASSENGER TRIP (2013 Dollars)\*\*\*



FISCAL YEAR

**TARGET:** Cost per passenger trip 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.

\*\* Calculations for Commuter Bus operating cost per passenger trip were modified from FY10 to FY11.

\*\*\* The cost data are adjusted for inflation.

### Why Did Performance Change?

- Average cost per trip increased by 9% from FY 2012 to FY 2013 (or \$0.51 per trip) due to rising fuel costs, contract increases and labor agreements
- Metro and Local Bus continues to be MTA's most efficient way to move passengers, with cost growth in line or below historical trends
- Controlled system costs while maintaining high levels of service quality
- Aggressively managed and audited contracted service providers to ensure 100% accuracy in invoices and claims
- MARC and Commuter Bus cost per trip increased this year, but increasing ridership and better contractual management have minimized cost growth, which stayed below historical levels

### What Are Future Performance Strategies?

- Continue efforts to control system costs while maintaining high levels of service quality
- Continue aggressive management and auditing of contracted service providers to ensure 100% accuracy in invoices and claims
- Provide maximum transit capacity possible in areas with the highest demand potential to provide increased passenger trips without major system expansions
- Re-evaluate the Local Bus network via the Bus Network Improvement Program (BNIP)



## MTA: Operating Cost Per Revenue Vehicle Mile

OPERATING COST PER REVENUE VEHICLE MILES (2013 Dollars)\*\*



### Why Did Performance Change?

- Average cost per mile decreased by 3.45% from FY 2012 to FY 2013 (about \$0.40)
- Operating cost increases typically are driven by fuel, contract increases, general inflation and labor agreements, however, tightening of schedules and elimination of redundant trips play a role in decreasing this metric (for example Local Bus, Light Rail and Metro schedules change three times per year to match commuting needs)

### What Are Future Performance Strategies?

- Continue efforts to control system costs while maintaining high levels of service quality
- Continue aggressive management and auditing of contracted service providers to ensure 100% accuracy in invoices and claims
- Provide maximum transit capacity possible in areas of highest demand potential in order to provide increased passenger trips without major system expansions

**TARGET:** Cost per revenue vehicle mile 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.

\*\* The cost data are adjusted for inflation.





## 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?

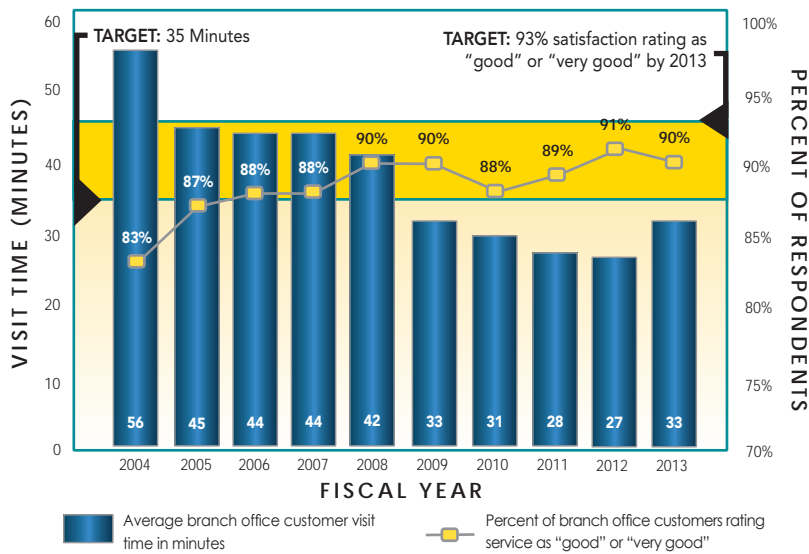
- FY 2013 survey results will be available in January 2014, and will therefore be published in the next Attainment Report
- MTA continues programs to delivery high quality service to its customers
- The overall satisfaction rating decreased from 3.2 in CY 2011 to 3.1 in CY 2012. However, there was an increase in the satisfaction rating for Light Rail, MARC and Contracted Commuter Bus, Metro and Mobility remained the same, and Local Bus decreased
- Improved safety and communications with customers in the event of service disruptions through the installation of CCTVs and LED displays at Light Rail and Metro stations
- Expanded Commuter Bus park-and-ride lots in St Mary's County
- Renovated of the MARC Halethorpe station with a grand re-opening in August 12, 2013

### What Are Future Performance Strategies?

- Explore venues to obtain real-time customer satisfaction from customers' mobile devices to help increase MTA's ability to track customers' perceptions throughout the year
- Continue to implement the Transit Modernization Program (TMP) to modernize the entire MTA transit system throughout the State
- Complete the Bus Network Improvement Program (BNIP) (included in the TMP), an eight-month project that will analyze ridership and regional land use to provide the groundwork for a five year, multi-phase plan for updating and improving MTA's bus service BNIP
- Continue Local Bus service improvements (eg, scheduling), deployment of AVL 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 (eg, emails, Twitter, website updates) as well as on-site and on-board announcements, including system-wide enhancements to the Public Announcement – Light-Emitting Diode (PA-LED) audio/visual systems on MARC, Baltimore Metro and Light Rail
- Continue MARC weekend service on the Penn Line which commenced on December 7, 2013, and continue implementation of the MARC Growth and Investment Plan (MGIP)

## 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?

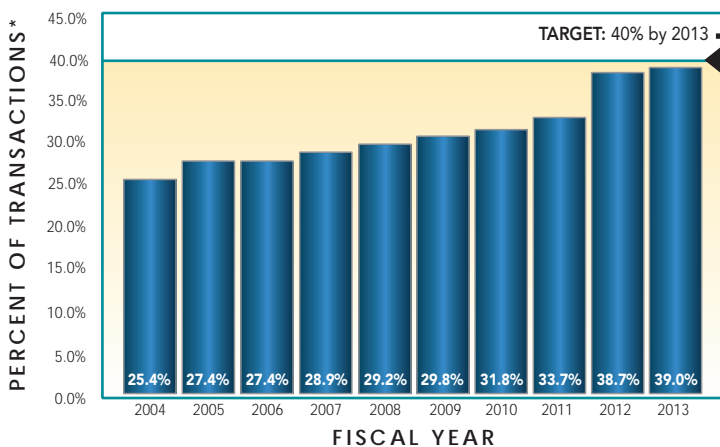
- Reduced and maintained customer wait times through alternative service delivery (ASD) methods including U.S. mail, kiosk, interactive voice response system and the Internet, concurrently with a reduction in staffing levels
- Implemented initiatives such as capturing email addresses and emailing vehicle registration notices, online ID card renewal and online driver's license renewal (every other renewal cycle)
- Enhanced organizational development programs and customer awareness campaigns combined with process and technical enhancements to increase customer satisfaction levels
- Customer satisfaction scores dropped slightly in FY 2013 due to 222,000 more transactions than FY 2012 and the resulting higher visit time

### What Are Future Performance Strategies?

- 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
- Enhance external service and product delivery to associated government agencies through inter- and intra- agency partnerships and collaboration
- Plan, design and implement an enhanced technical platform that will allow for the full integration of core business services and processes thus providing the customer with more efficient access to MVA driver and vehicle services and products
- Continue to actively enhance policies and practices to effectively coordinate dealer investigations and exchange of information between Business Licensing and Investigations Division
- Automate and standardize the collection of detailed customer satisfaction information
- Maintain a standard for Customer Agent performance and develop enhanced training programs and provide training to Customer Service Representatives and Driver License Examiners

## 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).

### Why Did Performance Change?

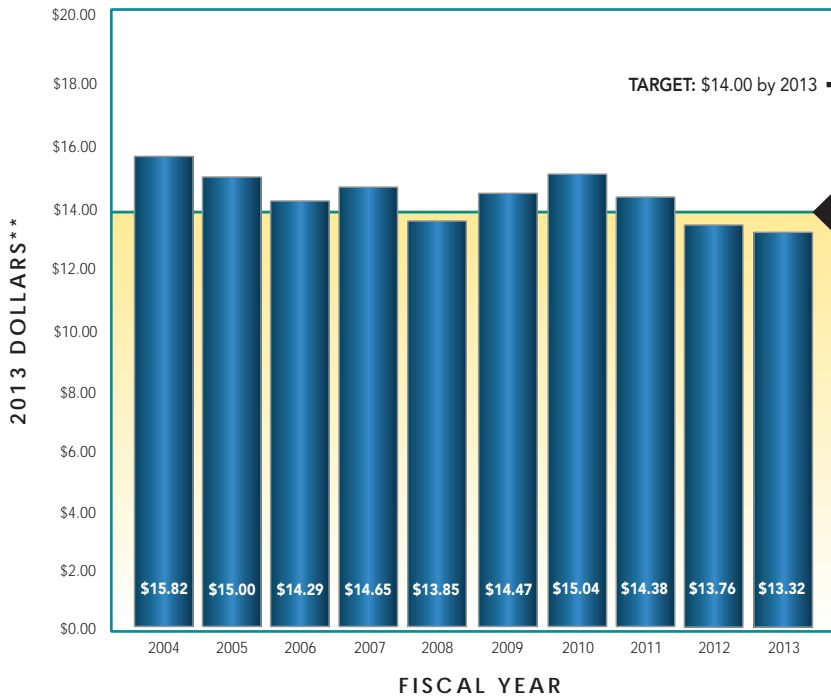
- Through the implementation of legislative and policy changes, deployment of innovative technology (self-service kiosks, central scheduling, email collection, website redesign) and creative marketing, the MVA was able to successfully increase its ASD usage from 33.7% in FY 2011 to 39.0% in FY 2013
- By providing additional service and product availability through alternative means, customer ASD usage increased, thus ultimately reducing walk-in branch transactions

### What Are Future Performance Strategies?

- Continue to refine and implement the initiatives outlined in its comprehensive Alternative Service Delivery Plan to progressively add MVA services over the Internet through FY 2016
- Provided the ability for individuals less than 40 years of age to renew their driver's license through the web and kiosk every other renewal cycle and expanded this option in FY 2013 to include those over 40 with the implementation of a system that allows eye professionals to record online the result of vision tests
- The MVA will make ASD mandatory for the following services: photo ID card renewal, license duplication and minor corrections, duplicate or corrected registration, duplicate or corrected titles, and substitute stickers
- Continue the process of redesigning the MVA website in order to improve the way it serves its customers
- Continue to capture customer email addresses for the purpose of sending vehicle registration renewal and driver's license renewals notices by email to reduce mailing costs, improve efficiency and for customer convenience

## 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 historical cost per transaction data are 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)
- On an inflation-adjusted basis, MVA's operating costs were lower in FY 2013 than the previous fiscal year, while total transactions processed were slightly higher
- Costs associated with human resources account for approximately two-thirds of overall agency operating costs, the current economic environment has allowed MVA to control costs attributable to employee compensation

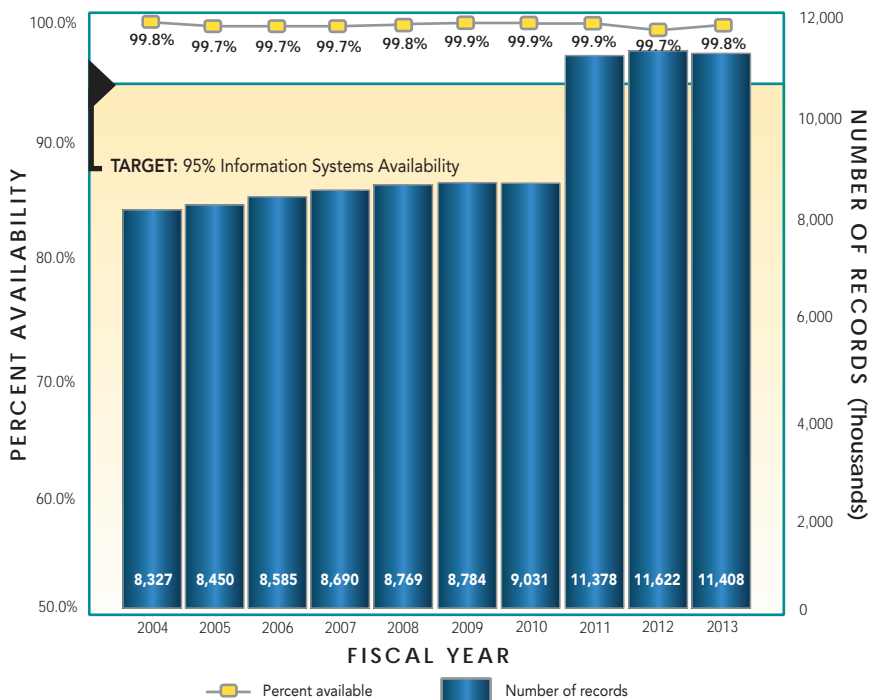
### What Are Future Performance Strategies?

- Continue testing and implementing strategies to contain operating costs as the number of transactions processed has drifted upwards
- Continue investment in technology and maintaining a network of customer service offices to efficiently accommodate growth in the customer base
- Implement enhanced ASD options, with plans for migrating customers toward those investments



## 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?

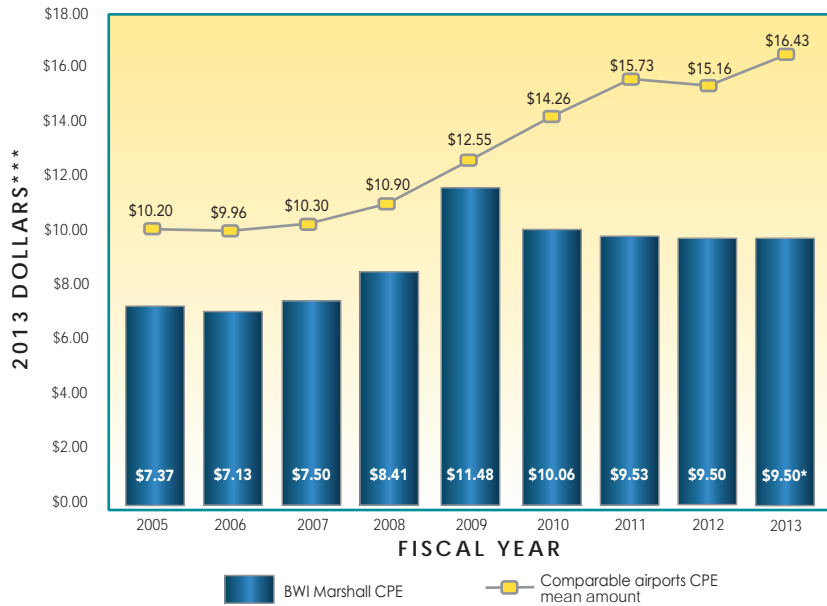
- Access to MVA system data is critical to support law enforcement and public safety agencies, and programs such as Child Support Enforcement, Arrest Warrants, Tax Compliance, Courts Point System, Board of Elections, Organ Donor, and Chesapeake Bay and Agriculture Programs
- Employed the latest technological system conventions and security requirements and techniques
- In FY 2013 the percent of system availability slightly increased to 99.8%, remaining well above the target measure of 95%
- The MVA touches the lives of every motorist in Maryland, whether through the issuance of driver licenses or ID cards or the registration and titling of vehicles. Mainframe record capacity is driven by the demographic nature of Maryland as opposed to the specific business nature of the MVA
- The number of mainframe records for licensed drivers, ID card holders and registered motor vehicles decreased from 11,621,504 in FY 2012 to 11,408,021 in FY 2013

### What Are Future Performance Strategies?

- Continue to provide data for Law Enforcement, Child Support Enforcement, Arrest Warrants, Courts Point System, Tax Compliance, Board of Elections, Organ Donor, Chesapeake Bay and Agriculture Programs
- Continue to ensure full-time system access with minimal business disruptions by employing the latest technological system conventions and security requirements and techniques

## 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\*\*

\*2013 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 are adjusted for inflation.



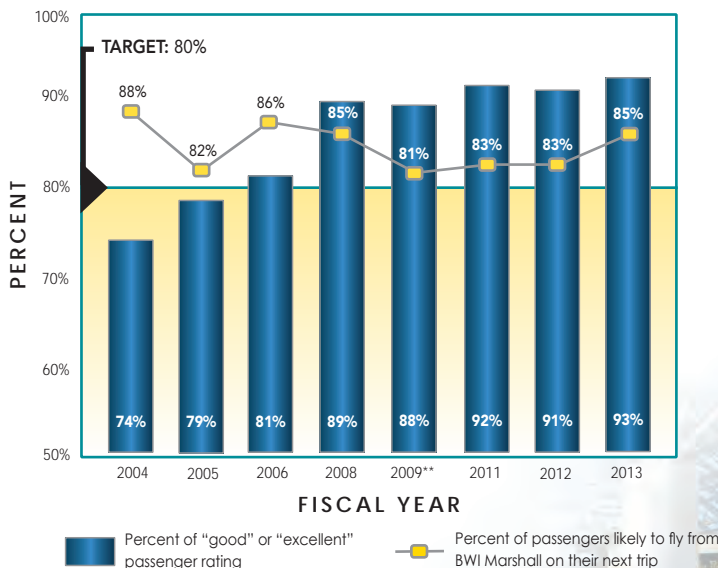
### Why Did Performance Change?

- The CPE at BWI Marshall continues to be the lowest in the mid-Atlantic region and be well below the mean of comparable airports
- Closely monitored all airport costs to keep BWI Marshall rates competitive with other regional airports

### What Are Future Performance Strategies?

- Continue to closely monitor all airport costs to keep BWI Marshall rates competitive with other regional airports
- Continue to review the cost effectiveness of capital projects before moving forward with design and construction

## MAA: Percent of BWI Marshall Customers Rating the Airport "Good" or "Excellent" on Key Services\*



### Why Did Performance Change?

- BWI Marshall continues to well exceed its customer satisfaction goals
- Managed the BWI Marshall cleaning contracts to ensure that the cleanliness of the terminal building, restrooms, etc. meet the expectations of passengers at BWI Marshall
- Monitored quarterly satisfaction scores for trends that need to be addressed

### What Are Future Performance Strategies?

- Continue to manage the BWI Marshall cleaning contracts to ensure that the cleanliness of the terminal building, restrooms, etc. meet the expectations of passengers at BWI Marshall
- Continue to monitor quarterly satisfaction scores for trends that need to be addressed
- Enhance customer service by adding technology at bus stops in BWI Marshall's parking lots which show passengers when the next bus is scheduled to arrive
- Continue to enhance the terminal building with projects such as the planned new security checkpoint for Concourses D and E, as well as a connector between the two concourses

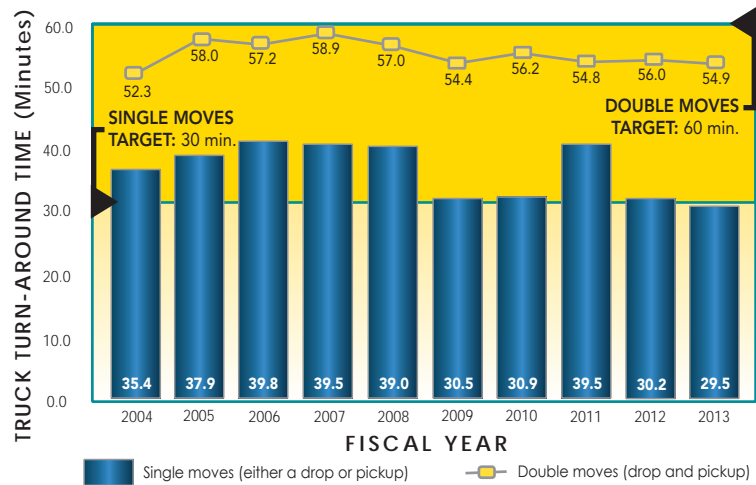
\* Surveys not administered in 2007 and 2010.

\*\* 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?

- Equipment and technology enhancements were implemented thereby improving gate velocity and processing efficiencies
- Fully implemented the TWIC program to balance security and commerce

### What Are Future Performance Strategies?

- Continue the Quality Cargo Handling Team (Q-CHAT) to further improve containerized cargo handling
- Continue cost/benefit based evaluation and possible implementation of additional process enhancing technologies to further improve gate and terminal performance
- Evaluate business processes to ensure gate and terminal processes are not adversely impacted by existing and proposed commercial improvements
- Work with State and regional economic development offices to locate sites to attract new distribution centers to Maryland
- The Port of Baltimore welcomed its largest weekly service of a fleet of 9,200 TEU container ships from Mediterranean Shipping Company's Far East Service to the Port of Baltimore's Seagirt Marine Terminal

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

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

| FISCAL YEAR*      | 2007 | 2010 | 2013 |
|-------------------|------|------|------|
| Percent Satisfied | 87%  | 86%  | 86%  |

TARGET: 87% (Baseline year = 2007)

\* Survey not implemented in 2008, 2009, 2011 and 2012.

### Why Did Performance Change?

- The MDTA did not conduct customer surveys in FY 2011 as staff was re-examining the survey process to include in-house administration of future surveys. Surveys were not conducted in FY 2012 due to demands on time and staffing constraints. FY 2013 was conducted in August 2012
- The results from the survey conducted in FY 2013 showed a favorable response to the estimated satisfaction consistent with the results from the 2007 and 2010 surveys; every question had a majority response of "satisfied" or "completely satisfied"
- Completed the conversion of AVI decal to Hatem Bridge (US 40) Plan, which provides the same opportunities to the Hatem Bridge (US 40) users as the other MDTA plans offer

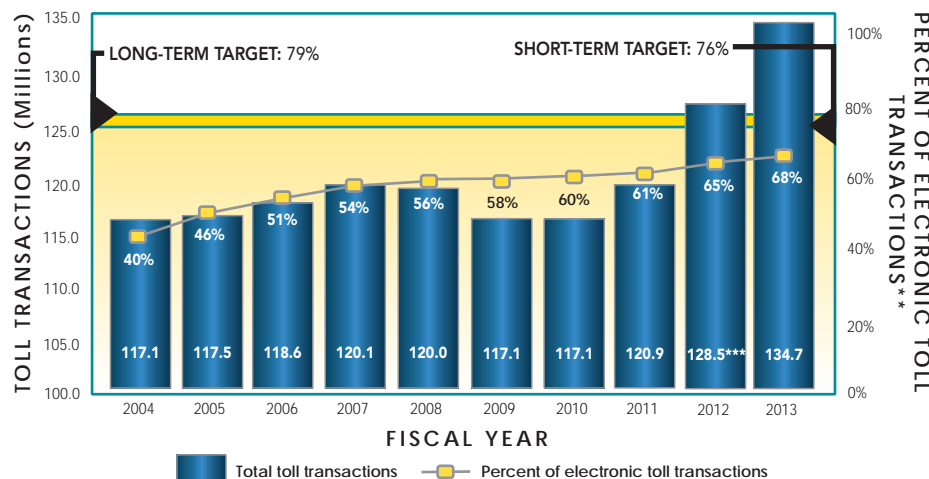
### What Are Future Performance Strategies?

- Utilize satisfaction surveys as fiscal and staffing constraints allow
- Continue to respond to customer suggestions for improvements, as are fiscally possible
- MDTA will develop innovative ways to market E-ZPass®
- Upgrade E-ZPass® website for ease of use for current and potential account holders, as well as motorists who use the facilities owned and operated by the MDTA



## 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.



### Why Did Performance Change?

- Significant increase in E-ZPass® accounts usage in FY 2013 due to a 66% increase in traffic on the ICC/MD 200 and Hatem Bridge (US 40)
- Continued a public outreach campaign to encourage use of E-ZPass®
- Electronic toll collection (ETC) transactions represented 74% of all transactions for FY 2013 (134,715,000 transactions) which is an increase of 3% points compared to FY 2012 (71%)

### What Are Future Performance Strategies?

- E-ZPass® usage will continue to increase as usage of the ICC/MD 200 increases during FY 2015 along with the opening of the I-95 express lanes, possible conversion of Hatem Bridge (US 40) and Francis Scott Key bridges to All-Electronic Tolling (AET)
- Continue construction on the I-95 Express Toll Lane project with a planned opening in late 2014; MDTA developed an I-95 ETL tolling plan in September 2013 for public review and comment

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

\*\* The methodology for toll transactions collected electronically was modified; data beginning in 2009 has been revised to reflect the new methodology.

# GOAL:

# Environmental Stewardship



Ensure that the delivery of the State's transportation infrastructure program conserves and enhances Maryland's natural, historic and cultural resources.

Facing Challenges

## Summary of Goal Achievement



## Objectives

- Limit the impacts of transportation on Maryland's natural environment through impact avoidance, minimization and mitigation
- Employ resource protection and conservation practices in project development, construction, operations and maintenance of transportation assets
- Implement transportation initiatives to mitigate the impacts of climate change and improve air quality
- Support broader efforts to improve the health of the Chesapeake Bay, protect wildlife, conserve energy and address the impacts of climate change

MDOT recognizes that transportation infrastructure can have a strong influence on the quality and health of Maryland's natural environment. MDOT's commitment to environmental stewardship is one aspect of a broad commitment to a more sustainable future. That future will require the transportation system to be resilient and our strategies for the protection of natural, cultural and community resources to be forward-looking and adaptive.

MDOT practices resource protection and conservation in all phases of a transportation assets lifecycle. MDOT is in the process of standardizing environmental management systems across all the modal agencies to help identify specific compliance needs, achieve environmental regulatory compliance and maintain compliance on an ongoing basis. MDOT is working with SHA and MDTA to implement planning processes, develop design criteria and construct stormwater controls and alternative water quality improvement strategies in order to meet the U.S. Environmental Protection Agency's (U.S. EPA) Chesapeake Bay Total Maximum Daily Load (TMDL) requirements by the year 2025. The FY 2014–FY 2019 CTP includes \$546.2 million in SHA funding to plan, design and construct stormwater controls and alternative water quality improvement strategies adjacent to Maryland roadways to help meet the TMDL requirements.

Mitigating and addressing the impacts of climate change and improving air and water quality are key objectives for MDOT. MDOT is an implementation partner in Governor O'Malley's *Smart, Green & Growing* initiative, and also plays a key role in the State's mitigation of greenhouse gas (GHG) emissions and response to the threats of global climate change in developing the Maryland Climate Action Plan.

## Key Initiatives

**MDOT:** MDOT chairs the Maryland Electric Vehicle Infrastructure Council (EVIC) which has recommended a set of strategies to facilitate the successful integration of Electric Vehicles (EVs) and EV infrastructure into Maryland's transportation system.

As part of the State's response to the EPA's mandate of TMDLs for nutrients and sediment in the Chesapeake Bay and its tidal tributaries, MDOT facilitates agency strategies to meet the requirements of the Watershed Implementation Plan.

**MAA:** The MAA promotes stewardship of Maryland's environment through recycling programs, stormwater management and wetland remediation, energy efficiency improvements for airport facilities and vehicle fleets, and alternative energy sources. MAA recycles at least 20% of BWI Marshall's solid waste, has implemented an Energy Efficiency Program for BWI Marshall and Martin State Airport, and recently installed a solar photovoltaic (PV) energy system on top of the BWI Marshall daily parking garage.

**MPA:** MPA's GreenPort initiative is reducing waterborne litter by improving recycling and waste management, improving water quality through installation of stormwater treatment technologies, restoring shorelines and wetlands, improving air quality through the Mid-Atlantic Dray Truck Replacement Program and the Clean Diesel Program, and reducing energy consumption through facility heating and cooling improvements, lighting system upgrades, water conservation measures, and solar energy system installations.



## Key Initiatives (continued)

**MTA:** The MTA environmental policy commits to comprehensive environmental protection through continual process improvement that prevents pollution, conserves energy, and supports conservation of our natural and cultural resources. The MTA operates over 230 hybrid buses and 26 new MP-36 locomotives which meet stringent new EPA requirements for all types of pollutants, is replacing electric fixtures and bulbs throughout the system with more energy-efficient components, and maintains a stormwater management program that includes working with the Jones Falls Watershed Association to restore, monitor and protect the watershed and build citizen awareness.

**MDTA:** MDTA administers environmental compliance programs at its nine maintenance facilities, two travel plazas, and weigh and inspection stations and leads a sustainability initiative focusing on energy conservation, materials and waste management, fuel management and alternative fuels, and stormwater management.

MDTA is addressing the EPA's Chesapeake Bay Restoration goals by completing and refining an inventory of impervious areas, investigating innovative approaches to implement stormwater retrofits, and designing and constructing bio-swale and bio-filter stormwater retrofits along MDTA highways to achieve goal of treating 20% of untreated impervious surfaces by 2020. MDTA performed 1,916 erosion and sediment control inspections with two non-compliance findings in FY 2013 for a compliance rate of 99.9%.

**MVA:** MVA is committed to the protection and enhancement of the environment through the development of a Compliance Focused Environmental Management System (CFEMS). The MVA continues to enhance provision of Internet-based services to avoid unnecessary vehicle trips, while also developing new technologies and services to facilitate vehicle emissions testing as well as new regulations to ensure compliance with State emissions testing mandates.

**SHA:** SHA continues to investigate opportunities to institute fleet reductions to cut overall fuel consumption and expand fueling locations for E-85 fuel, while also encouraging drivers of flex-fueled SHA vehicles to fuel up with E-85 fuel when practical.

SHA is increasing the use of recycled materials in highway construction in an effort to reduce greenhouse gas emissions and landfill waste. In CY 2012, SHA used 165,318 tons of recycled asphalt pavement in highway construction projects-the equivalent of 13% of all the asphalt placed on State roadways that year.

Planning, design and construction activities to meet EPA's Chesapeake Bay Restoration goals are ongoing. SHA is pursuing wetland, stream and forest banking sites for project mitigation and TMDL compliance that are beneficial for both improving water quality and providing greater ecological habitat functions.

## Maryland Aviation Administration

The Maryland Aviation Administration promotes good stewardship of Maryland's environment while keeping our people and our economy moving. Approaches include recycling, energy efficiency, environment and community protection, and alternative energy.

**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. The Energy Efficiency project also includes water efficiency projects including ultra-low flow toilets, faucets and shower heads to reduce water consumption.

**Environmental Protection:** As the landlord for the more than 3,200 acres that comprise BWI Airport, MAA is also the steward of the many natural resources on its property. MAA must determine the potential effects of development on these resources and fulfill all applicable laws.

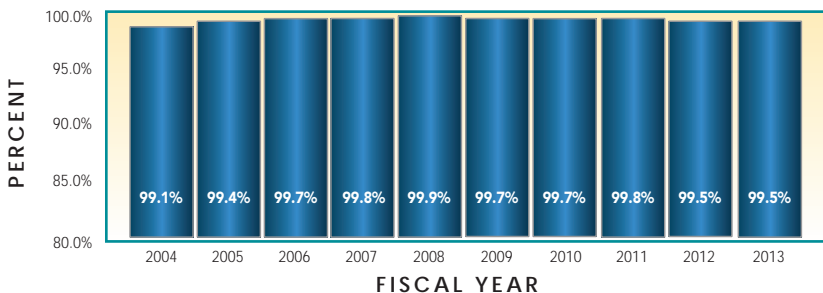
**Community Protection:** Through the Homeowner Assistance Program, MAA enhances the environment of neighboring communities by providing noise mitigation for homeowners residing within the BWI Marshall Airport Noise Zone.

**Alternative Energy:** Installed a 505 kW solar PV system on top of the BWI Marshall daily parking garage.



## SHA: Percent of Compliance on Erosion and Sediment Control Ratings\*

State and federal regulations mandate erosion and sediment control (ESC) during construction of any land disturbing activity. ESC is a system of structural and vegetative measures that minimize soil erosion and off-site sedimentation from construction and roadway runoff. At any given time, SHA has many construction and maintenance activities that cause earth disturbance and require ESC. Maryland Department of the Environment (MDE) has delegated inspection authority with oversight to SHA with specific parameters to be observed and rated. The results of the individual project inspection rating indicate compliance or non-compliance with the ESC requirements and the law.



Target: 100% Annually

\* This is a new measure and has not previously been reported in the Attainment Report.

### Why Did Performance Change?

- SHA performed over 4,000 erosion and sediment control inspections with only 20 non-compliance findings documented by SHA's Quality Assurance Team in FY 2013
- SHA's overall annual erosion and sediment control percentage of compliance in FY 2013 was 99.5%
- Erosion and Sediment Control training led by SHA and the Maryland Transportation Builders and Materials Association is now available online. Through FY 2013, 4,580 individuals completed this training

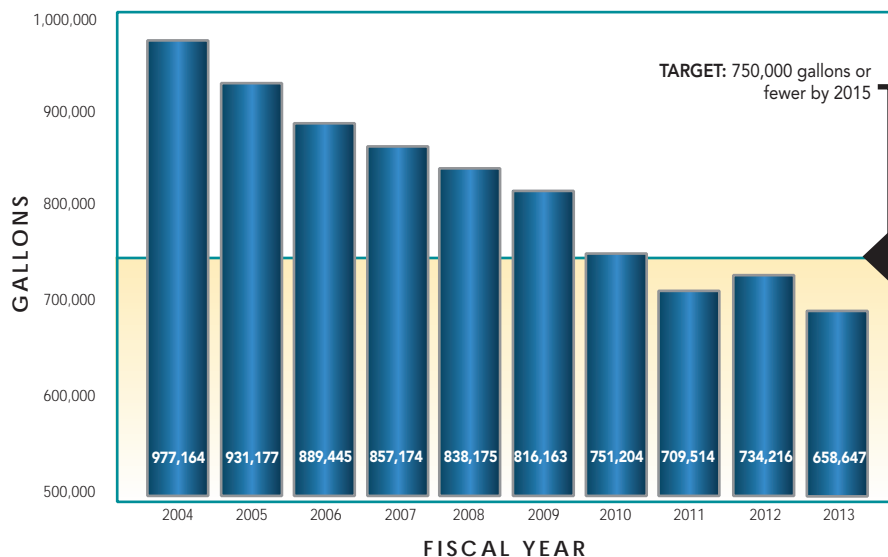


### What Are Future Performance Strategies?

- SHA's quality assurance rating system now includes incentives/liquidated damages to ensure compliance statewide
- SHA is working towards the formal approval and implementation of delegated authority to allow SHA to approve erosion and sediment control field changes during construction. A nine-month pilot to test this new procedure will be completed in FY 2014
- SHA will continue to deliver erosion and sediment control training and certification programs for contractors and inspectors, and a certification training program for designers

## 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?

- SHA purchased 38 flex-fueled, half-ton pickup trucks in an effort to continue phasing out older gasoline pickups and sport-utility vehicles, allowing for further opportunities to expand E-85 fuel usage
- Reduced the SHA light-duty fleet from 922 in FY 2012 to 903 in FY 2013
- Fuel efficiency of sedans and light trucks continues to increase, but the efficiency of SHA heavy-duty trucks and construction equipment, both of which are essential to SHA's core mission, has not improved significantly
- Continued to enforce the automobile engine-idling policy for all employees and consultants, and encouraged employees to save fuel through carpooling and videoconferencing for State business trips
- Continued employee outreach to encourage use of other existing and planned E-85 fueling stations at Maryland State Police facilities

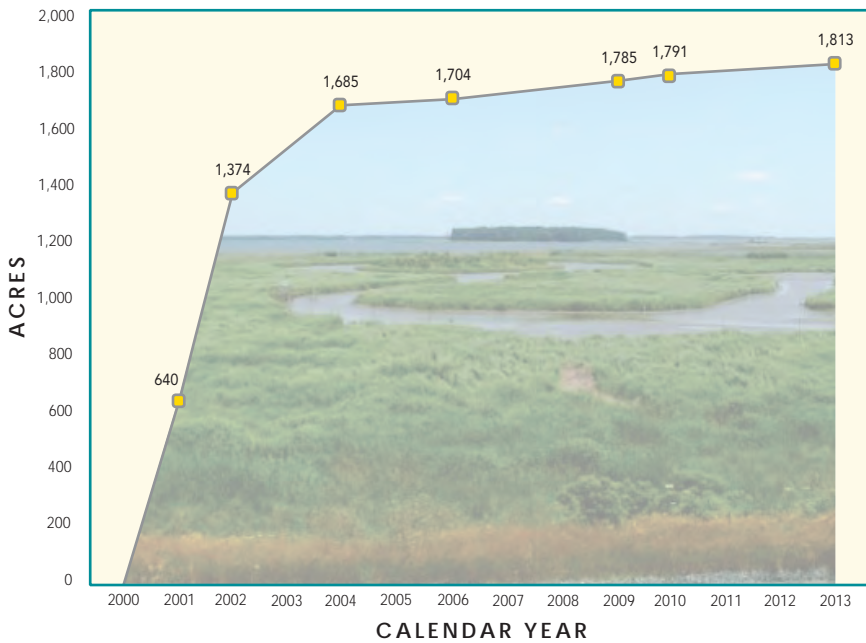
### What Are Future Performance Strategies?

- Investigate opportunities to expand fueling locations for E-85 fuel and encourage drivers of flex-fueled SHA vehicles to fuel up with E-85 gas when practical
- Continue to look for opportunities to institute fleet reductions to cut overall fuel consumption
- Continue to replace older diesel pickup trucks with flex-fueled pickup trucks of similar hauling and towing capacity



## 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).



**TARGET:** Mitigate projects as required by federal, State and local statutes

\*Represents cumulative mitigation efforts by MPA since 2000.

### Why Did Performance Change?

- The remaining 22 acres of Masonville Uplands (Access Zone 1, Central) was completed and opened for public use and wildlife habitat
- In September 2013, the Masonville Cove environmental restoration project received a very unique recognition: being named the first national Urban Wildlife Refuge by the U.S. Fish and Wildlife Service

### What Are Future Performance Strategies?

- When required to mitigate for a construction project, the MPA will continue to seek to create and improve wildlife habitat wherever appropriate and in conformance with permit requirements
- Long term efforts include creating and improving wildlife habitat as part of the Hart-Miller Island North Cell restoration and Poplar Island Expansion
- Continue Masonville eastern and peninsula uplands environmental improvement projects, which are noteworthy examples of coordinating with neighboring communities' needs which allows MPA to maintain its social license to operate



## 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.



### Why Did Performance Change?

- In FY 2013, customers waited an average of only 5 minutes, well below MVA's target threshold of 15 minutes
- In FY 2013, vehicle inspections decreased slightly from FY 2012 by 39,849 vehicles
- The VEIP compliance rate for FY 2013 decreased slightly to 88% when compared to the FY 2012 rate of 91%

### What Are Future Performance Strategies?

- Actively research new technologies and services to facilitate a more efficient vehicle emissions testing process
- In partnership with the MDE, continue to develop strategies, policies and regulations to ensure compliance with State emissions testing mandates and federal clean air standards
- Progressively monitor registered vehicles in eligible (non-attainment) counties to ensure VEIP testing compliance with State emissions regulations
- Continue to monitor wait times and implement process/procedure changes where necessary to maintain current wait time levels
- Plan, design and implement an enhanced technical platform that will allow for the full integration of core business services and processes, thus providing the customer with more efficient access to MVA driver and vehicle services and products

\* 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.

## Travel Demand Management

Maryland's transportation agencies promote Travel Demand Management (TDM) strategies as a way to combat congestion by offering incentives for Marylanders to choose to use public transit, carpool, ride a bike or walk instead of driving alone. Other strategies to reduce demand for roadways include promotion of telecommuting and flexible work hours as a way to reduce or shift trips to times when roadway capacity is less constrained. By cutting down on single-occupant vehicle trips and reducing peak period congestion, TDM initiatives also contribute to reduced emissions and improved air quality.



## MTA/SHA: Reduction in Vehicle Miles Traveled (VMT) Through Park-and-Ride Usage

By offering park-and-ride facilities, SHA and MTA provide commuters with an alternative to driving to their destinations and supports increased carpooling and public transit ridership.

| AGENCY                  | TOTAL # OF PARK-AND-RIDE FACILITIES | TOTAL SPACES  | AVERAGE WEEKDAY UTILIZATION* | UTILIZATION SHARE |
|-------------------------|-------------------------------------|---------------|------------------------------|-------------------|
| SHA (2013) (Estimated)  | 103                                 | 12,897        | 7,516                        | 59%               |
| MTA (2012)**            | 58                                  | 29,542        | 18,507                       | 63%               |
| Transit Multipurpose*** | 77                                  | 19,959        | 9,616                        | 48%               |
| <b>Total</b>            | <b>238</b>                          | <b>62,025</b> | <b>35,473</b>                | <b>57%</b>        |

\* 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 at Baltimore Metro, Light Rail and MARC stations only. MTA is conducting a survey in 2013, results will be available in 2014 and will be reported in the next Attainment Report.

\*\*\* Includes facilities operated by MTA, Amtrak, WMATA, Penn Station in Baltimore and Union Station in Washington, D.C. MTA is conducting a survey in 2013, results will be available in 2014 and will be reported in the next Attainment Report.



### Why Did Performance Change?

- Statewide, SHA park-and-ride lots in FY 2013 are at an estimated 59% capacity, which is in line with the historic average. Construction of an additional 490 spaces are estimated for completion by the end of 2013
- Statewide, MTA park-and-ride lots in FY 2013 are at an estimated 63% capacity, which is in line with the historic average
- In St. Mary's County, the Charlotte Hall park-and-ride lot opened with 300 spaces

### What Are Future Performance Strategies?

- SHA plans to complete a total of 327 spaces in FY2014 and advertise another 246 spaces for construction. MTA has programmed funding to expand parking at the MARC West Baltimore Station from 316 to 638 spaces, as well as construct new 500 space lots at Dunkirk and Waldorf for commuter bus service
- As part of master development agreements as part of a joint-development at Transit-Oriented Developments (TODs), negotiate increased park-and-ride facility capacity
- Continue to install EV charging posts at park-and-ride locations
- Continue to look for the opportunities to construct park-and-ride lots when planning major highway projects along interstates and principal arterials
- MTA will investigate how to bolster capacity by utilizing single deck parking structures at over-capacity park-and-ride facilities, without increasing stormwater runoff
- Continue to explore the adaptation of park-and-ride lots along freight corridors to allow long-haul trucks to park overnight where appropriate
- Bus Communications System Upgrades will commence in 2014 including unified, integrated, state-of-the art on-board bus equipment and fixed end systems to enhance the delivery of safe and reliable customer service
- Real Time Passenger Information Systems will be implemented in 2014 on Local Bus, Light Rail and Baltimore Metro services which will allow customers to check next bus or train arrival times through their phone or other device, on-line, as well as shown on LED signs at the rail station platforms

\* MTA park-and-ride lot VMT reductions are estimated based on the same assumptions used to calculate VMT reductions associated with MTA TERMS. These assumptions differ from SHA's VMT reduction calculation methodology.

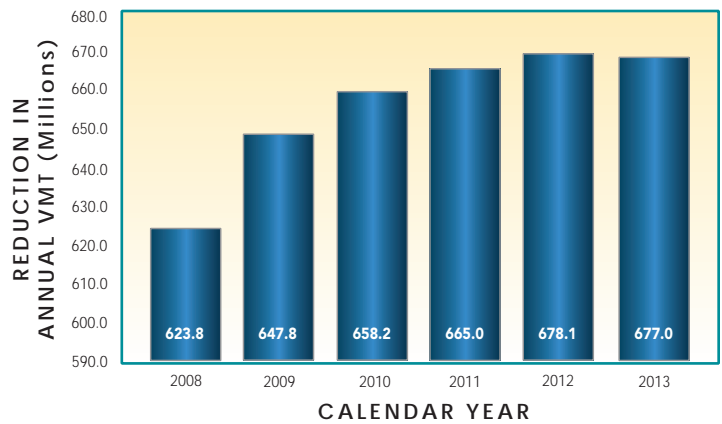


## MDOT: Reduction in Vehicle Miles Traveled Through Transportation Emission Reduction Measures

Maryland supports a wide variety of programs and projects to promote TDM, including Commuter Choice Maryland, Commuter Connections, the Telework Partnership, transit marketing and subsidy programs, and statewide park-and-ride facilities. These programs support reductions in single-occupant vehicle driving while increasing ridesharing, transit, and telecommuting.



Estimated Annual Regional VMT Reduction through TERMS



2012-2013 MDOT AND MTA TRANSPORTATION EMISSION REDUCTION MEASURES

| PROGRAM  | PROGRAM DESCRIPTION   | DAILY REDUCTION IN VEHICLE TRIPS* | DAILY REDUCTION IN VEHICLE MILES OF TRAVEL* |
|--|---|-----------------------------------|---|
| <b>Commuter Connections Transportation Emission Reduction Measures**</b> |   |                                   |   |
| 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  | 8,140                             | 212,448                                     |
| Employer Outreach  | Supports marketing efforts to increase employee awareness and use of alternatives to driving alone to work every day  | 92,129                            | 1,690,447                                   |
| 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 | 1,751                             | 52,584                                      |
| 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 Washington-Baltimore metropolitan region   | 6,312                             | 183,961                                     |
| Telework Resource Center   | Provides information to employers on the benefits of telecommuting and assists in setting up new or expanded telework programs for employers  | 12,745                            | 246,595                                     |
| Mass Marketing   | Promotes and communicates the benefits of alternative commute methods to single-occupant vehicle commuters through the media and other wide-reach communications  | 7,058                             | 79,838                                      |
| <b>MTA Transportation Emission Reduction Measures</b>                    |   |                                   |   |
| MTA College Pass   | Offers a subsidized monthly transit pass to full- or part-time students enrolled in greater Baltimore metropolitan area colleges or universities  | 3,859                             | 30,486                                      |
| 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   | 9,531                             | 160,788                                     |
| 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  | 3,017                             | 50,987                                      |

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

\*\* The Commuter Connections program is run through the Metropolitan Washington Council of Governments. The reduction in trips and VMT for Commuter Connections reflect reductions for all of the Metro Washington region, including Maryland, District of Columbia and Virginia.

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

Reducing vehicle emissions improves air quality in compliance with federal regulations and provides health benefits for Maryland residents. MDOT programs supporting TDM, transit, ridesharing, bicycling and walking, as well as projects that reduce roadway congestion all support air quality goals.

| PERFORMANCE MEASURE                          | REGION       | CALENDAR YEAR*** |       |       | % CHANGE 2002-2011 |
|--|--------------|------------------|-------|-------|--------------------|
|  |              | 2002             | 2008  | 2011  |                    |
| Volatile Organic Compound (VOC) Tons per Day | Baltimore    | 78.2             | 50.1  | 45.3  | -42%               |
|  | Washington** | 73.4             | 42.8  | 40.0  | -46%               |
| Nitrogen Oxide (NOx) Tons per Day            | Baltimore    | 209.4            | 125.7 | 116.7 | -44%               |
|  | Washington** | 175.1            | 102.2 | 103.0 | -41%               |
| Carbon Monoxide (CO) Tons per Day            | Baltimore    | 1,243.5          | 844.3 | 699.9 | -44%               |
|  | Washington** | 1,085.4          | 666.0 | 575.1 | -47%               |
| Particulate Matter (PM2.5) Tons per Day      | Baltimore    | 8.1              | 5.8   | 5.6   | -31%               |
|  | Washington** | 6.3              | 4.4   | 4.7   | -25%               |

\* Emissions calculated using EPA's MOVES2010a model.

\*\* All Washington data represents Maryland's share of emissions in the Washington region non-attainment area, including Charles, Frederick, Montgomery and Prince George's counties.

\*\*\* CY 2011 emissions data is preliminary. Final data will be published by EPA in late-2013.

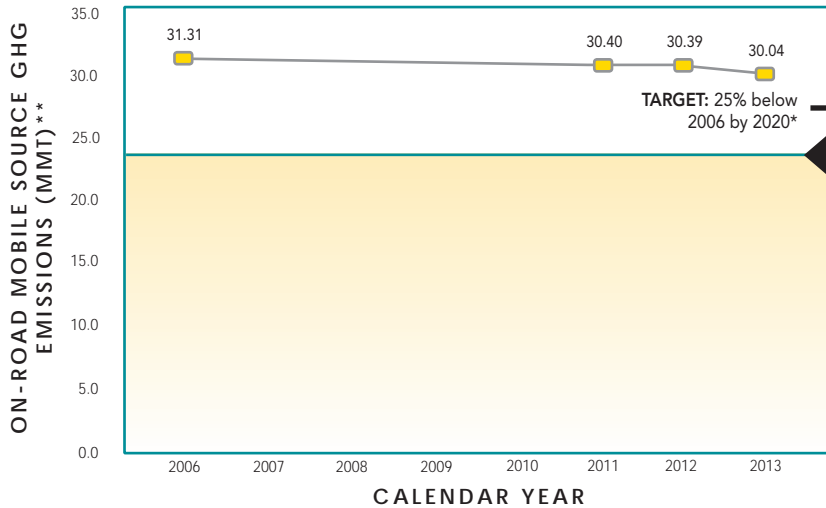


### What Are Future Performance Strategies?

- Promote mobile source emission reduction efforts including support of TERMS. MDOT supports the reduction of emissions through congestion mitigation, ridesharing and commuter incentive programs (\$25.0 million in dedicated funding in the FY 2014–FY 2019 CTP)
- 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
- Continue to replace older diesel buses in the MTA bus fleet, with the goal of ensuring that 100% of the MTA fleet are hybrid buses
- Replace MARC locomotives to maintain safe and reliable operation and to comply with EPA air quality emissions standards (the FY 2014–FY 2019 CTP identifies \$44.0 million in funding for replacement activities)

## MDOT: Transportation-Related Greenhouse Gas Emissions

A reduction in the growth of overall Vehicle Miles of Travel (VMT) is one of several strategies that MDOT is pursuing to address climate change through mitigation of GHG emissions. Reducing growth in VMT through providing transportation alternatives has other potential benefits to Marylanders, such as reduced congestion, reduced travel costs and improved travel time reliability. Other strategies include providing alternatives to SOV travel and transitioning to a less carbon intensive vehicle fleet and lower carbon fuels.



\* The MDOT selected GHG emission reduction goal (25% below 2006 emissions by 2020) is consistent with the statewide target set in the 2009 Greenhouse Gas Reduction Act. For on-road transportation, the goal equals 23.48 mmt CO<sub>2</sub>e in 2020.

\*\* MMT stands for million metric tons, the standard unit of measurement for GHG emissions.

### Why Did Performance Change?

MDOT responded to the 2009 Greenhouse Gas Reduction Act by setting a GHG reduction goal for the transportation sector of 25% below 2006 emissions by 2020. MDOT developed the MDOT Climate Action Plan in 2011 and contributed to the 2012 Greenhouse Gas Emissions Reduction Act Plan.

- The Transportation Act is supporting additional funding for alternative modes of transportation in both urban and non-urban locations throughout Maryland
- MDOT implemented emission-reduction strategies in nonattainment areas to foster transportation alternatives to single occupancy vehicles
- Vehicle GHG emissions decreased nationwide due to improved vehicle technologies, growing consumer preference for more fuel efficient vehicles including hybrid and electric vehicles, and little to no growth in VMT caused in part by economic conditions

### What Are Future Performance Strategies?

All MDOT modal agencies have implemented strategies to reduce on-road and off-road energy usage, as well as ozone and GHG related emissions and are continuing to do so.

- Continue to develop processes to include climate change mitigation and adaptation considerations into project selection, design, maintenance, operations, construction and emergency response
- In partnership with the University of Maryland, SHA is developing a Carbon Footprint and Reduction Recommendations Report to guide future efforts in reducing GHG emissions across the agency
- SHA is developing a Climate Change Vulnerability Report that will be used to categorize highway transportation asset issues and guide development of engineering options to adapt to changing climate conditions
- Encourage continued growth in transit ridership through ongoing system enhancements, service expansion, and outreach combined with continued support and implementation of TOD projects
- Continue MTA's green bus fleet service expansion: 57 new hybrid buses were put into service in FY 2013 and 50 more will be put into service in FY 2014, MTA plans to add more hybrid buses to the fleet in the future
- MDOT will continue to work with multiple State agencies and private partners to implement recommendations of the EVIC. Many of EVICs recommendations will be pursued within the context of an overarching goal of widespread electric vehicle adoption and are intended to provide sufficient support to reach an ambitious goal of 60,000 PEVs on the road in Maryland by 2020, or 2.3% of the State's passenger vehicle fleet
- MDTA is replacing fluorescent fixtures with light-emitting diode (LED) fixtures at the Fort McHenry Tunnel (I-95), is evaluating converting parking lot and other High Intensity Discharge (HID) light fixtures with LED fixtures, and is investing in solar panel light fixtures for warning signs located at ramp entrances
- MDTA is planning to convert two toll plazas, the Hatem Bridge (US 40) and the Francis Scott Key Bridge (I-695), to All Electronic Tolling (AET) to enhance the free flow of traffic through the toll plaza areas within the next six years
- MVA has taken an aggressive approach to reducing energy, fuel and water consumption while simultaneously reducing MVA's carbon footprint by utilizing various new technologies at MVA's full-service and express branch locations



## GOAL:

# Community Vitality



Provide options for the movement of people and goods that support communities and quality of life.

## Summary of Goal Achievement



## Objectives

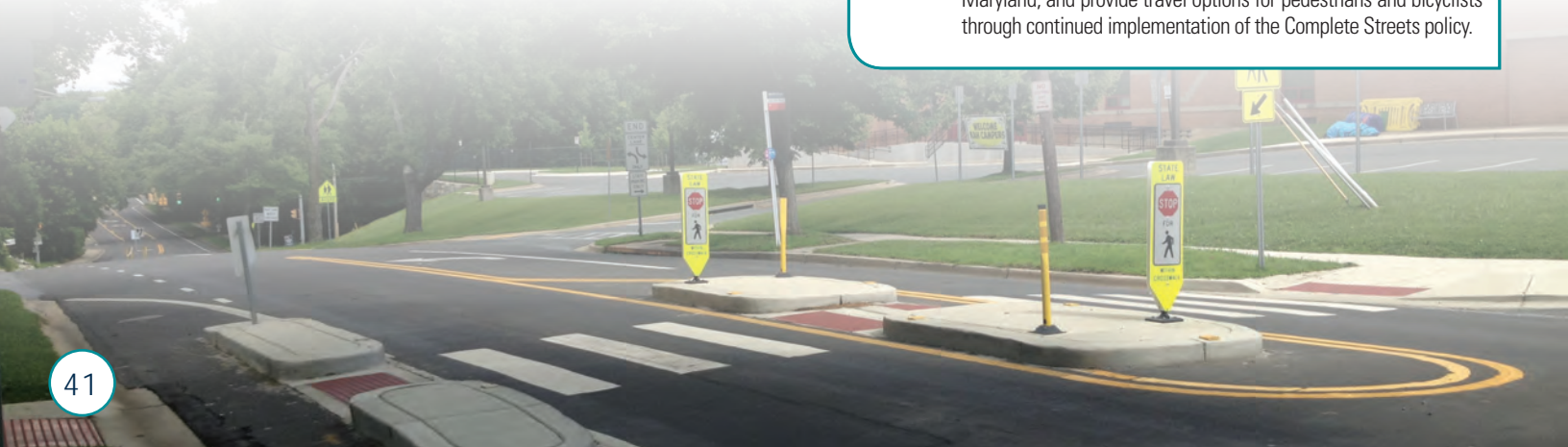
- Better coordinate transportation investments and land use planning to support the environmental, social and economic sustainability of Maryland’s existing communities and planned growth areas
- Enhance transportation networks and choices to improve mobility and accessibility, and to better integrate with land use
- Increase and enhance transportation connections to move people and goods within and between activity centers

MDOT and the modal administrations coordinate to provide linked multimodal transportation options for travelers. Implementation of SHA’s “Complete Streets” policies means that every year more roadways in Maryland have new or improved pedestrian and bicycle facilities. For local travel, the Bikeways Program, Community Safety and Enhancement, Recreational Trails, and Safe Routes to School continue to award and fund bicycle and pedestrian enhancements in rural and urban locations as viable healthy options for connections to work, school, shopping and transit. Transit operates the most efficiently and serves customers the best when development is concentrated around transit stations. Transit-Oriented Development (TOD) is a major focus of Maryland’s *Smart, Green & Growing* initiative as TOD projects can successfully leverage public sector infrastructure investment to attract private sector investment to revitalize communities, create jobs and save household transportation costs. MDOT works with State, local and private partners to support TOD in the 16 designated sites in Maryland through pre-development planning, joint development partnerships, infrastructure investments and other project support.

Maryland’s extensive road network provides regional transportation linkages for safe, efficient and reliable connections. The road network supports Maryland communities by providing access to jobs, services, recreational and tourist areas, and commercial areas. A reliable and safe roadway system is particularly critical in rural areas of Maryland, where roads represent the primary link to economic opportunities. For example, in the FY 2014–FY 2019 CTP, SHA’s safety, congestion relief and community enhancement program includes \$5.17 billion in funding for projects across Maryland like bridge rehabilitation, roadway resurfacing, safety and intersection improvements, and other enhancements that maintain and improve access to communities.

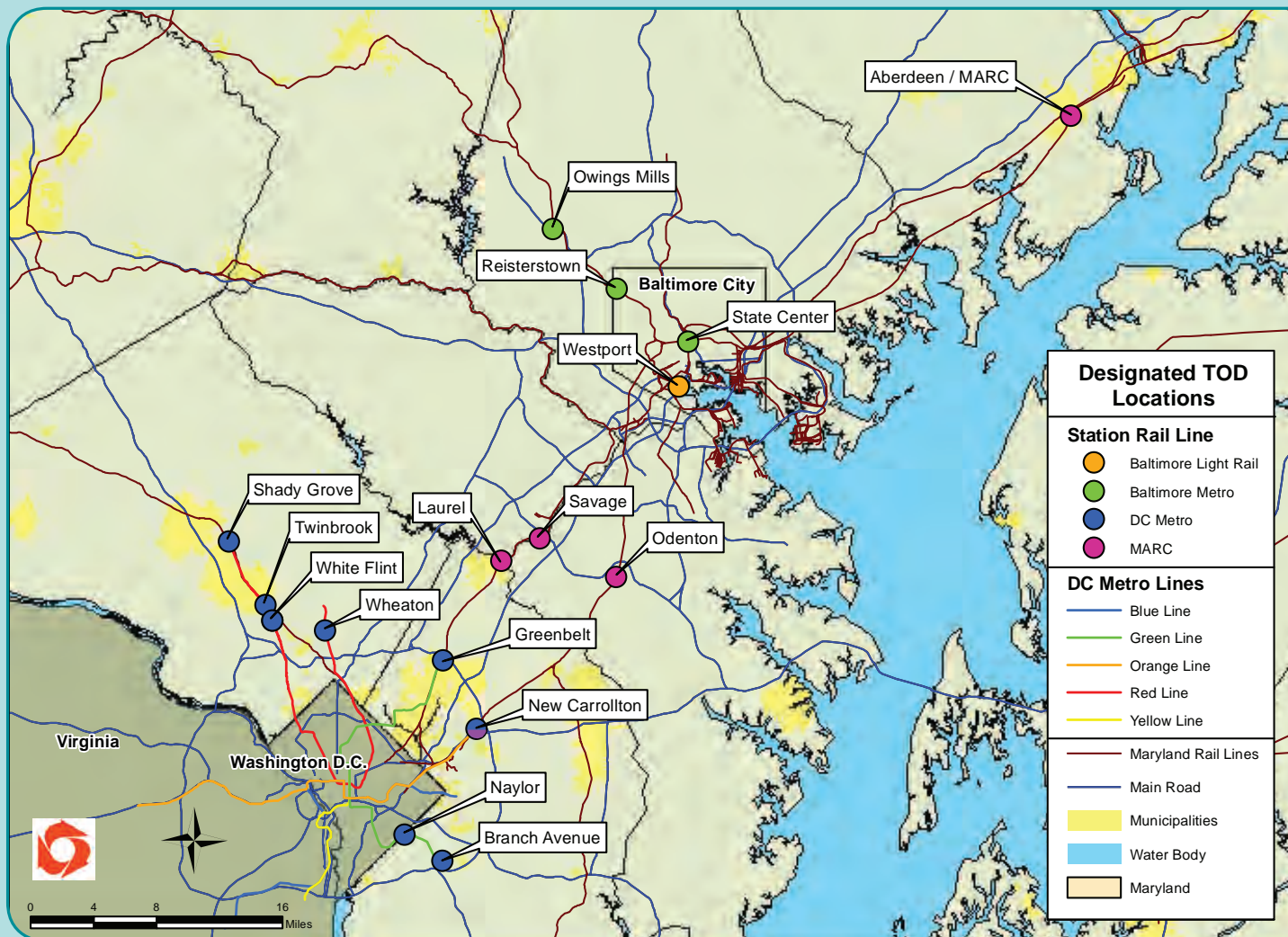
## Key Initiatives

- MDOT:** Continue to support alternative transportation options with strategic investments for communities to plan and implement bike routes, sidewalks and shared use paths through the Bikeways, Bikesare and Transportation Alternatives programs.
- MAA:** Support passenger traffic growth with a \$125.0 million three-year plan which will provide future growth opportunities with expected increases in international and domestic air service schedules and markets served.
- MPA:** Execute a \$10.0 million federal grant and \$19 million in State matching funds to increase rail access, expand storage at Fairfield Marine Terminal and widen the channel at Seagirt Marine Terminal to accommodate anticipated future cargo upon the completion of the Panama Canal expansion.
- MTA:** Advance the Baltimore Red Line and the Purple Line light rail. The Red line will provide faster, more reliable transportation between residential and major employment areas with direct connections to the existing Metro subway and Light Rail lines and the MARC Penn Line. The Purple Line will provide faster, more reliable transportation between Bethesda in Montgomery County and New Carrollton in Prince George’s County; it will enhance access to existing radial Metrorail lines, increase transit capacity in congested corridors, and support economic development consistent with local master plans.
- MDTA:** Continue rehabilitation of bridges, tunnels and highways through implementation of new toll rates collection and Video Tolling. MDTA is also working with Baltimore City on the Gateway.
- MVA:** Support online connectivity and outreach through the launch of a smartphone/tablet application, which allows customers to access real-time wait times and queue lengths at MVA or Vehicle Emissions Inspection Program (VEIP) stations, in addition to the Online Vision Certification Service which allows electronic submission of vision screening results for driver license renewal.
- SHA:** Continue to relieve congestion and improve safety for motorists with construction improvements on the most heavily traveled routes in Maryland, and provide travel options for pedestrians and bicyclists through continued implementation of the Complete Streets policy.



## Maryland TOD Designation Program

With the support of the 2008 General Assembly, Governor Martin O'Malley signed into law legislation designed to facilitate the creation of TOD in Maryland. The TOD designation includes technical planning assistance, financing tools, access assistance from SHA and MTA, and sustainable community benefits. Since 2008, significant progress has been made across the 15 previously designated sites, and at a newly designated site (Greenbelt, Prince George's County). Currently eight of the sites are undergoing active development, including site planning, developer agreements and construction.



### Reisterstown Plaza Metro Station:

Reisterstown Plaza Metro Station is a 35-acre TOD site situated at the Baltimore City/County line. Eleven acres of the site were conveyed to the General Services Administration in 2009 for the construction of a 538,000 square foot building to house Social Security Administration offices. Building construction is ongoing with completion scheduled for summer 2014.

### Annapolis Junction Town Center at Savage MARC Station:

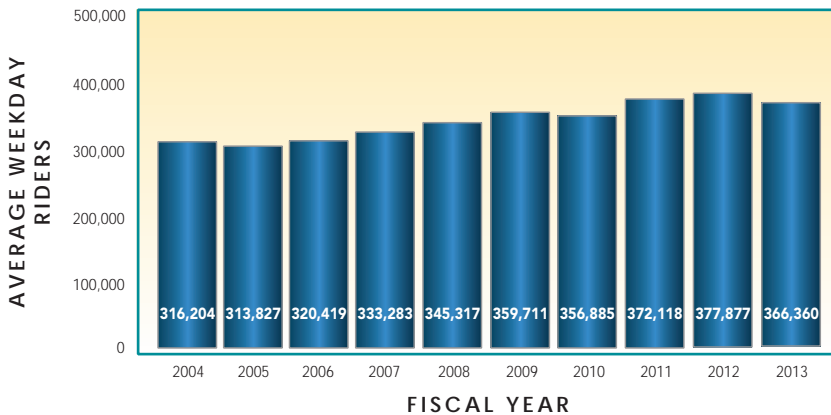
Maryland has an approved master development agreement for the development of 18 acres at the Savage MARC Station in Howard County. The project will include approximately 425 apartments, 100,000 square feet of office space, 17,000 square feet of retail space, a hotel and a 700-space commuter parking garage, financed with tax-increment financing funding from Howard County.

### TOD Benefits:

- Supports transportation alternatives including access to transit by bicycles and pedestrians
- Increases transit ridership and supports reducing roadway congestion
- Promotes community safety, convenience and economic development
- Supports environmental conservation efforts by helping minimize air and water quality impacts
- Enhances accessibility to jobs, housing and other destinations for all residents

## 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 FY 2013 was 3% lower than FY 2012 (the highest recorded since tracking), primarily due to decline in core bus ridership, and FY 2014 is expected to grow as a bounce back from Hurricane Sandy and overall ridership growth
- Inclement weather from Hurricane Sandy and snowstorms in FY 2013 impacted ridership levels
- Average weekday ridership increased 25% for Taxi Access, 7% for MARC, 6% for Mobility Paratransit and 1% for Light Rail in FY 2012
- MTA ridership experienced an overall increase of 15% from FY 2004 to FY 2013
- Expanded parking options for commuters to alleviate over-crowded lots in St Mary's County
- Compared to ridership in 2004, MTA is providing over 50,000 more transit trips every weekday; Compared to 2006, MTA is providing an additional 45,000 transit trips every day
- Renovated the MARC Halethorpe Station; a grand re-opening was held on August 12, 2013

### What Are Future Performance Strategies?

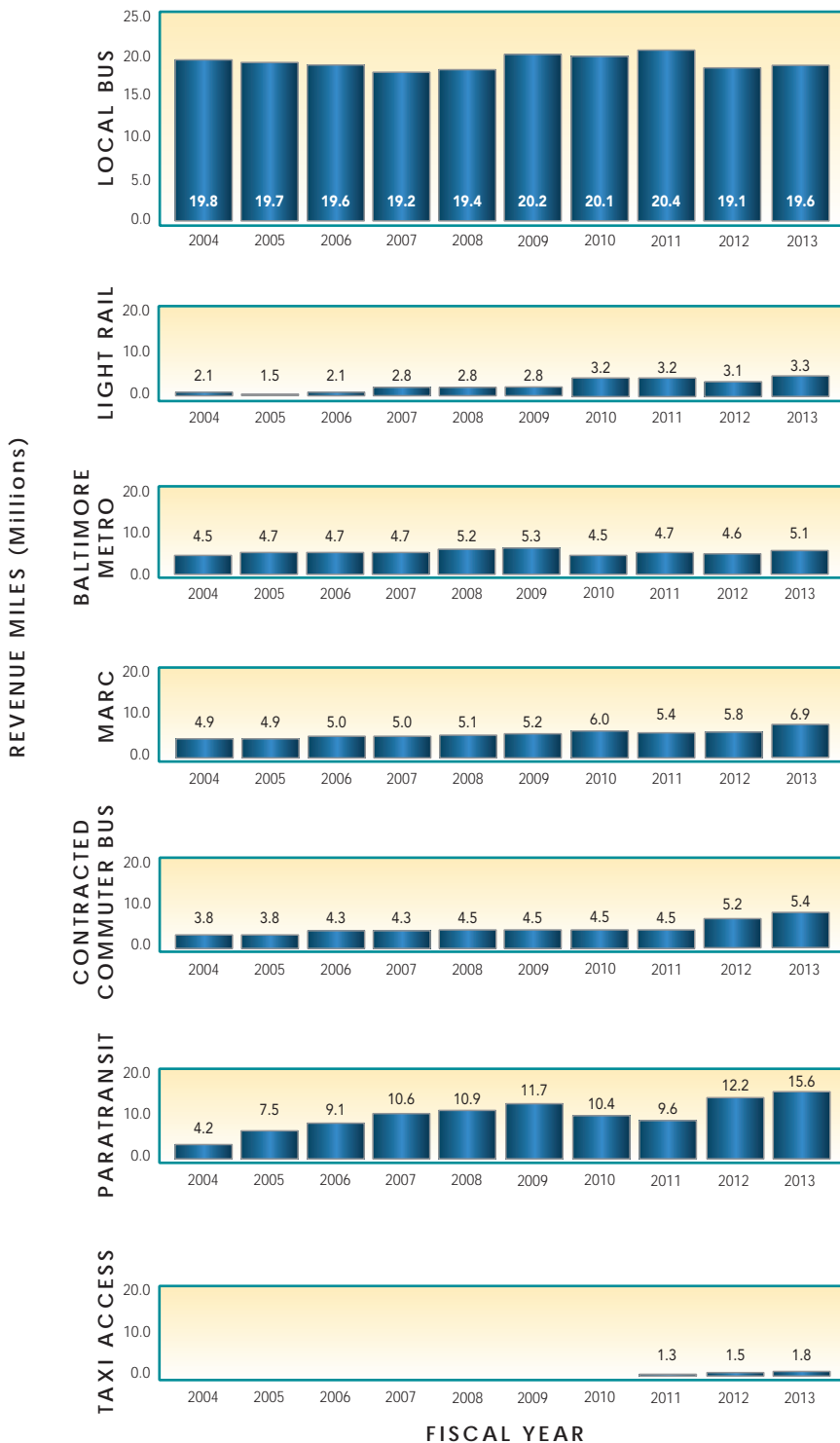
- Continue to improve service reliability and on time performance through Priority Corridor Network (PCN) investments and State of Good Operations (SOGO) investments
- Increase service reliability with investment in Core Bus Computer-Aided Dispatch and Automatic Vehicle Locator (CAD/AVL) system, by increasing service functionality and allowing for better decision making and service monitoring
- Expand parking and ADA platform improvements for MARC and commuter bus stations to better accommodate current customers and expected growth
- Increase rail service between Baltimore and Washington, with projects to expand weekend service on the Penn Line and add more trains on the Camden Line planned for completion in 2013
- Continue to investigate and implement more parking options for commuters to alleviate over-crowded lots (the FY 2014–FY 2019 CTP includes funding to complete park-and-ride lot expansion at the MARC West Baltimore Station and for new park-and-ride lots as part of the Southern Maryland Commuter Bus Initiative in Charlotte Hall, Dunkirk and Waldorf)
- Aggressively seek solutions to maximize Local Bus system capacity while controlling costs through efficient scheduling and system design
- Increase system reliability through reductions in mechanical failures and improving on time performance
- Continue to increase capacity on the Local Bus network by investing in articulated coaches – currently 42 are in service (6% of the fleet)
- Implement real-time passenger information on MTA's transit services
- Implement MARC Growth and Investment Plan Update
- Opening of the Red Line, Purple Line and Corridor Cities Transitway New Start projects of the MTA





## 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?

- Increased availability of transit service on MARC by adding trains on the Penn Line and extending termini on some train lines
- Provided an efficient alternative to driving with Commuter Bus service enhancements, including adding Intercounty Connector (ICC) routes 201, 202, 203 and 204
- Paratransit & Taxi Access mileage experienced a large increase due to the increase in the number certified users thus increasing the number of trips provided

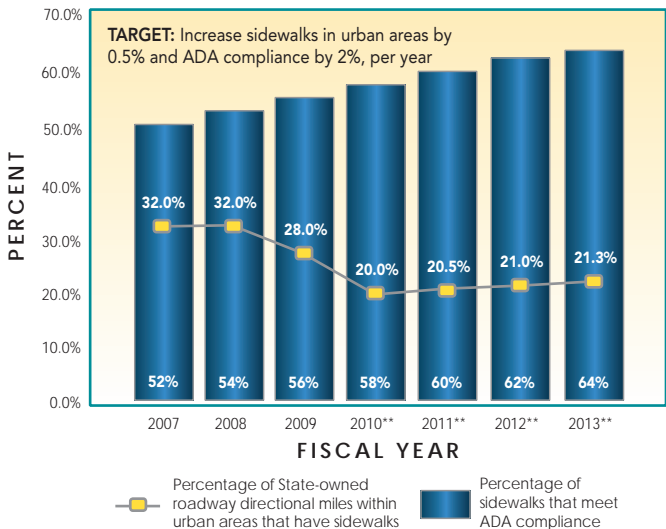
### What Are Future Performance Strategies?

- Advance projects which expand the fixed guideway transit network, including the Red Line, the Purple Line and the Corridor Cities Transitway (CCT), a bus rapid transit project which will provide more direct high capacity transit
- MDOT funds urban and rural LOTS operators to support regular vehicle replacement and expansion as well as adequate support facilities providing reliable maintenance. The FY 2014–FY 2019 CTP includes funding in FY 2014 to rural areas including replacement or new buses for Allegany, Caroline, Dorchester, Garrett, Talbot, St. Mary's counties, the Tri-County Council for the Lower Eastern Shore, and Ocean City
- Increase or reallocate service miles, where needed, to maximize transit availability
- Bus Network Improvement Project (BNIP) is an eight-month project which will analyze ridership and regional land use to provide the groundwork for a five-year, multi-phase plan for updating and improving MTA's bus service. BNIP is a key component of a larger effort called the Transit Modernization Program (TMP) which is working to modernize the entire MTA transit system throughout the State
- Implement MARC Growth and Investment Plan Update



## 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.



### Why Did Performance Change?

- SHA invested \$16.6 million in FY 2013 to improve and construct sidewalks and to address ADA accessibility
- SHA has increased the percentage of existing traffic signals which are accessible pedestrian signal equipped to 59% since the program began in FY 2006 including installing more than 755 accessible pedestrian signals

### What Are Future Performance Strategies?

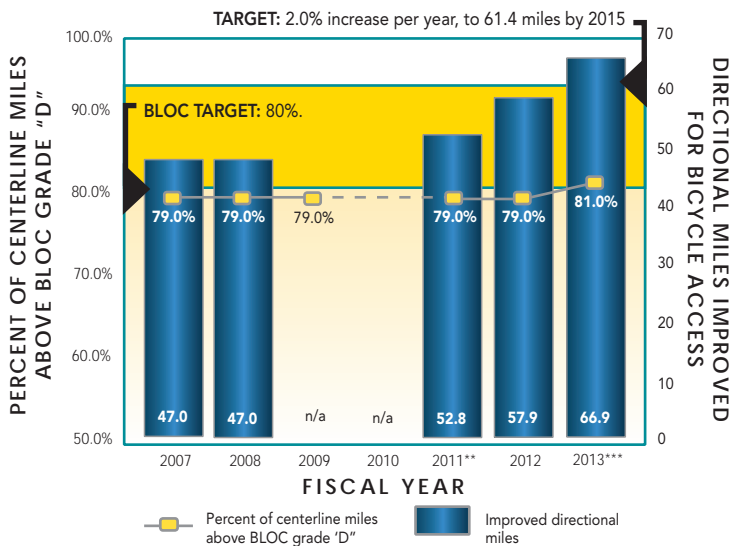
- Support safe pedestrian access along State highways (\$34.4 million for the New Sidewalk Construction for Pedestrian Access Program and \$79.1 million for the Sidewalk Reconstruction for Pedestrian Access Program in the FY 2014–FY 2019 CTP)
- Continue to target funds towards areas in which there is a history of high pedestrian injuries and fatalities, as well as a significant impediments to pedestrian access
- Construct numerous sidewalk improvement projects in FY 2014, including MD 355 in Chevy Chase, MD 528 in Ocean City, MD 424 in Crofton and MD 17 in Myersville
- Continue to upgrade intersections with audible pedestrian signals, countdown pedestrian signals and ADA features (pedestrian curb ramps and median cut-throughs)

\* In the future, Bike and Pedestrian Attainment Report performance measures might include Attainment Report Advisory Committee (ARAC) approved updates and modifications that result from the Bike and Pedestrian Master Plan update.

\*\* 2010 - 2013 data are based on a new data collection method that cannot be accurately compared to previous years' data.

## SHA: Percentage of State-Owned Roadway Centerline Miles with a Bicycle Level of Comfort (BLOC) Grade "D" or Better and Number of Directional Miles Improved for Bicycle Access\*

BLOC (scale "A" to "F") is a measure for assessing the quality of the statewide roadway system for its comfort and compatibility with bicycle users. It accounts for multiple characteristics of the roadway through a formula which produces a single BLOC grade for any section of roadway. Shoulder width is the most influential roadway characteristic for improving BLOC. "Improved for bicycle access" means that shoulder and travel lanes have permanent markings to designate use for bicyclists. The amount of bicycle access in a jurisdiction is typically a good measure of the level of bike friendliness of that jurisdiction; however, access is not captured in the BLOC formula; thus, both must be taken into account when evaluating the quality of the bicycling environment.



### Why Did Performance Change?

- Increased the directional miles of bicycle facilities along existing SHA roadways by 16.95%, based on FY 2011 data, in FY 2013
- Adopted new bicycle guidelines that provide improved guidance for the design of bicycle facilities and are consistent with the newly issued 2012 bicycle guidelines from the American Association of State Highway and Transportation Officials
- Current estimates indicate that 207.4 miles of roadway legally eligible for bikes to access (4,754.8 miles) were improved from a BLOC grade "D" or worse (grades "D", "E" and "F") to a BLOC grade "C" or better (grades "A", "B" and "C") in FY 2013

### What Are Future Performance Strategies?

- Support bicycle improvement projects along State highways (\$25.1 million for the Bicycle Retrofit Program in the FY 2014–FY 2019 CTP)
- Implement statewide, multi-jurisdictional bicycling routes that will serve as the most comfortable route between regionally significant points of interest, beginning with the Fort Meade to Columbia route
- Pilot projects using social media applications to allow SHA to communicate with the bicycling community in a more proactive and efficient manner such as an interactive website that sends feeds back and forth between Twitter and Facebook to allow an online discussion of projects and recent developments at SHA
- Implement the statewide Bicycle and Pedestrian Master plan (released in January, 2014) by identifying critical bicycle connections and working with local jurisdictions to identify priority areas and projects

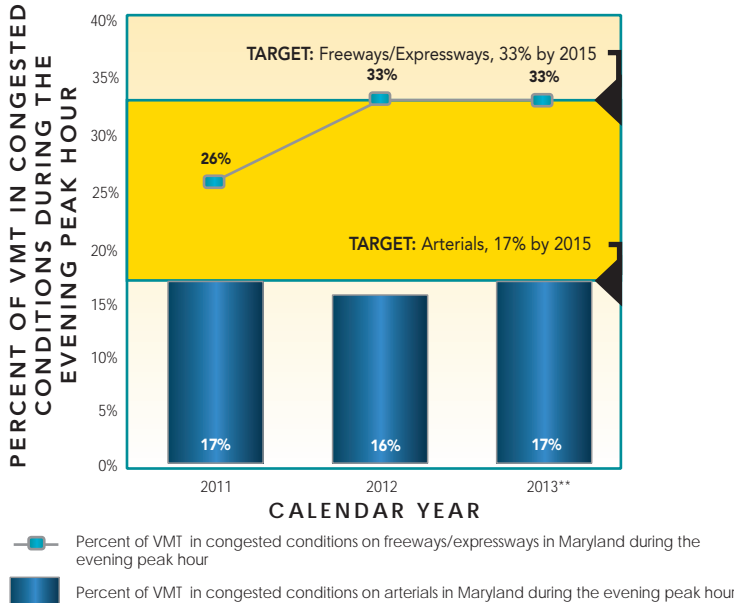
\* In the future, Bike and Pedestrian Attainment Report performance measures might include Attainment Report Advisory Committee (ARAC) approved updates and modifications that result from the Bike and Pedestrian Master Plan update.

\*\* FY 2011 marked bike mileage is the revised baseline data. The BLOC measure has consistently shown 79-80% of facilities meeting a grade "D" or better in previous years.

\*\*\* BLOC 2013 data is preliminary and subject to change.

## SHA & MDTA: Percent of VMT in Congested Conditions on Freeways/Expressways and Arterials During the Evening Peak Hour\*

This measure tracks SHA performance in reducing congestion on the State highway system. This is an indicator of congestion and the people/vehicles impacted by congestion.



\* The previous congestion-related measure has been replaced with this measure; the data is not comparable to the past congestion measures reported in previous Attainment Reports.

\*\* 2013 data is preliminary and subject to change.

### Why Did Performance Change?

- Projects under construction to add capacity and reduce congestion include construction of a new interchange at I-95 and Contee Road in Prince George's County, intersection capacity improvements on MD 175 in Anne Arundel County, and widening MD 404 to four lanes in Talbot County
- SHA continued to use a state-of-the-art method for measuring congestion (developed in partnership with University of Maryland) that accounts for actual traffic speeds and volumes as experienced by drivers during the most congested time of day

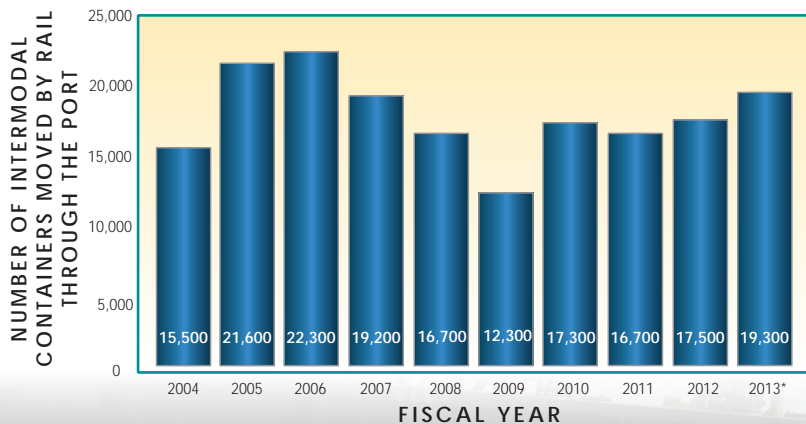
### What Are Future Performance Strategies?

- MDTA is scheduled to start preliminary engineering of the Harry W. Nice Bridge (US 301) replacement project
- Install advanced traffic management system (ATMS) and advanced traffic information system (ATIS) technologies on highways and arterials statewide to monitor heavy volume and stop-and-go commuter peaks, and reduce congestion and travel time
- Develop traffic management strategies to improve operations and address congestion on the Capital Beltway, I-95, I-270 and US 301
- SHA is developing short-term congestion management solutions to improve traffic operations on its arterial system (low-cost geometric improvements, signal retiming, transit signal prioritization, etc.) and its freeways/expressways systems (geometric improvements, incident management, special event planning and ITS strategies)
- Continue the construction on I-95 Improvements with Express Toll Lanes (ETLs) with a planned opening in FY 2015, and possible conversion of Hatem Bridge (US 40) and Francis Scott Key bridges to All-Electronic Tolling (AET)



## MPA: Intermodal Containers Moved by Rail Through the Port

Tracking intermodal containers moved by rail through the Port provides an understanding of the options for containerized freight movement to/from MPA's terminals (particularly Seagirt & Dundalk) via CSX or Norfolk Southern railroads.



\* 2013 data is preliminary and subject to change.

### Why Did Performance Change?

- Over the past decade, CSX and Norfolk and Southern (NS) have carried similar volumes of port containers; however, for the past few years, NS's volumes have been greater. This may change after 2015 with the planned opening CSX's new double-stack capable facility

### What Are Future Performance Strategies?

- MDOT/MPA is working with CSX to relocate the intermodal container transfer facility from Seagirt to CSX's Mt. Clare Yard by 2015 to allow the Port access to the national high cube double-stack rail network. This will coincide with the expansion of the Panama Canal, and has the potential to bring additional containerized cargo to the Port if rates are aggressive
- Work with the steamship lines to try to get a first-port-of call with a new container service to the Port
- Enhance cargo handling and rail access through the USDOT \$10 million TIGER grant to complete the Fairfield Marine Terminal rail access project to increase rail intermodal flexibility for Roll-on, Roll-off (RoRo) cargo



## GOAL:

# Economic Prosperity

 Support a healthy and competitive Maryland economy.

## Summary of Goal Achievement



## Objective

- Improve the movement of freight and support growth in the flow of goods within and through Maryland
- Facilitate opportunities for growth in jobs and business across the State

Many facets of a strong economy rely on an efficient and well maintained multimodal transportation system. This relationship is particularly critical in Maryland as major transportation systems contribute to the State's economic well-being including facilities that support freight movement into, out of, and through the Mid-Atlantic region such as the Port of Baltimore, BWI Marshall Airport, I-95, and the Northeast Corridor. An efficient and resilient transportation system also connects Maryland's skilled workforce to employment centers in the Baltimore and Washington regions. This connection makes Maryland an attractive destination for major employers who see an efficient transportation system, skilled workforce and high quality of life as key factors in location decisions.

MDOT partners with state and federal agencies, local jurisdictions and the private sector on priority economic development and Transit-Oriented Development (TOD) projects. Targeted multimodal transportation investments are made in tandem with other state and local activities, to facilitate private investment and job creation. MDOT has partnered with the private sector to deliver and operate new transportation investments including ongoing projects to upgrade and operate the I-95 Travel Plazas and the Seagirt Marine Terminal. The Seagirt Marine Terminal has become a national model for public-private partnerships and has positioned Maryland to be one of only two ports on the East Coast to be ready to receive the new Panamax cargo ships in 2015.

MDOT also implements enhancements that support individual economic prosperity. For example, in FY 2013, the MVA, working with the Veterans Administration, enhanced its identification and drivers license products to include a veteran's indicator and a streamlined process for veterans to obtain a Maryland Commercial Driver's License if they had commercial vehicle driving experience during their military service.

There can be a large "opportunity cost" associated with failure to sufficiently invest in the preservation, and enhancement of transportation facilities and services, for two reasons: (1) deferred maintenance can lead to higher reconstruction costs later on, and (2) the State could lose businesses due to deficient transportation. The new funding from the Transportation Infrastructure Investment Act will put more Marylanders to work in the transportation industry and will create hundreds of millions of dollars in economic activity. As a result, this work will provide Marylanders with the transportation infrastructure necessary to grow and prosper for decades to come.

## Key Initiatives

**MDOT:** A number of new projects and funding added by the Transportation Act to the FY 2014–FY 2019 CTP are geared toward promoting economic prosperity in urban and rural communities in Maryland. For example, the FY 2014–FY 2019 CTP includes \$5.0 million to study the US 220 South corridor and \$44.3 million in construction funding to widen and rehabilitate the I-81 bridge over the Potomac River.

**MAA:** Complete the multi-phase construction of a new secure connector between Concourse D and Concourse E, development of a new security checkpoint to serve domestic and international travelers, and a reconfiguration of existing airline gates to support additional international flights. The project is moving forward with a \$25.0 million investment from the Transportation Act, and \$100 million provided by Passenger Facility Charges collected with each airline ticket. The preliminary schedule calls for all terminal improvements to be completed in the fall of 2016.

**MTA:** Continue to work with MDOT and other public and private partners to develop and capitalize on Public-Private Partnership opportunities to leverage MDOT funds to build and operate new transit corridors such as the Purple Line.

**MDTA:** Continue strategic investments that maintain Maryland's critical bridges and tunnels, deploy state-of-the-art electronic toll collection technologies, and study new managed lane facilities that provide reliable travel time corridors and generate revenue for future transportation investment.

**MPA:** Continue to develop business synergies through the public-private partnership with Ports America Chesapeake to maximize cargo volumes through the port of Baltimore, implement new gate procedures to improve security, capacity, and processing times and strategically acquire parcels adjacent to existing terminals to expand capacity for storing autos and Roll-On Roll-Off (RoRo) equipment.

**SHA:** Continue to implement process improvements in the access management division with the aim of increasing the number of properly completed permit packages. This helps reduce the number of time-consuming, multiple project submissions by developer teams. In FY 2013, there were \$17.0 million in private-sector-funded infrastructure improvements and approximately \$6.0 million in regional infrastructure improvements, because of access permits.

**MVA:** In FY 2013, MVA managed and disbursed \$1.5 billion in revenue to support the Transportation Trust Fund, representing a 5% increase from FY 2012. These funds support, for example, investment in Maryland roads and bridges, the Emergency Medical System, Trauma Physician Services, the Chesapeake Bay Trust Fund, MD Agriculture Commemorative, Organ Donor Foundation, and the Maryland Automobile Insurance Fund among others.

## Maryland Freight: Improving the Movement of Goods

Efficient and interconnected multimodal freight movement is essential to the health of any economy. To illustrate, Maryland manufacturers depend on the freight system to move raw materials and finished goods between production facilities, distribution centers and retail outlets in Maryland and throughout the U.S. and the world. Freight dependent industries, such as mining, agriculture, retail and wholesale trade, manufacturing, construction and warehousing, account for over one million jobs in Maryland.

### The Impact of Freight on Maryland's Economy

FREIGHT ORIGINATING AND TERMINATING IN MARYLAND (2008)

| METHOD FOR MOVING FREIGHT | TOTAL VALUE (MILLIONS) | TOTAL TONNAGE (THOUSANDS) |
|---------------------------|------------------------|---------------------------|
| Air                       | \$3,831*               | 120**                     |
| Other***                  | \$53,321               | 10,809                    |
| Rail*                     | \$9,111                | 30,228                    |
| Truck*                    | \$310,187              | 243,259                   |
| Water****                 | \$53,851*****          | 41,500                    |
| All Freight               | \$430,301              | 325,916                   |

\* 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.

\*\* MAA, estimated cargo data.

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

\*\*\*\* Value of international cargo through the Port of Baltimore.

\*\*\*\*\* Source is MPA-compiled data for 2012.



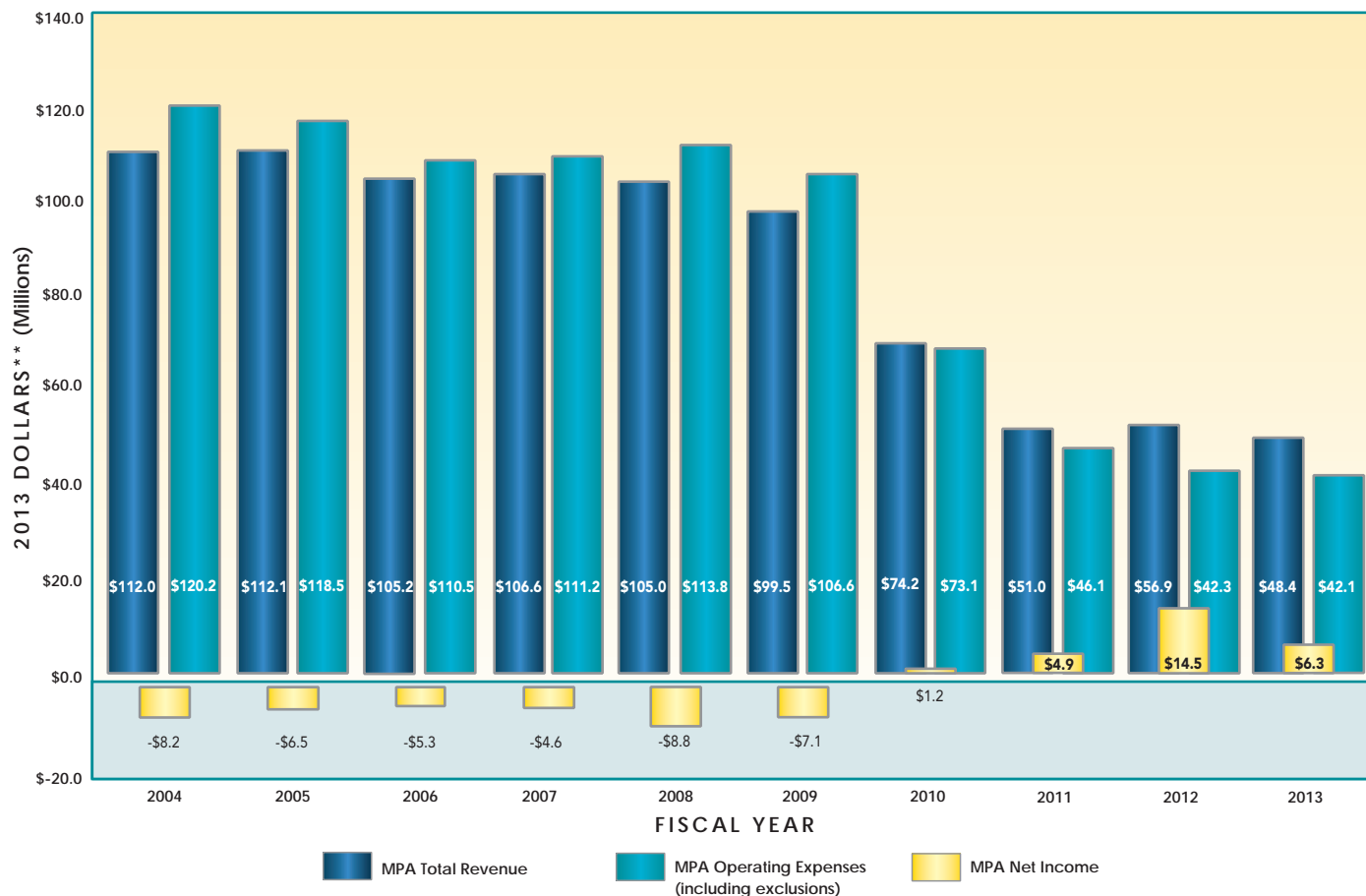
### Maryland Freight Highlights

- Materials shipped via air are likely to be high value and time sensitive. The top air freight commodities shipped out of MAA facilities include mail, machinery and transportation equipment. MAA invests in capital improvements at BWI Marshall and Martin State Airport and provides grants to general aviation airports to continue to ensure the safety of all aircraft operations.
- Rail is particularly well suited to hauling heavy, lower value goods long distances. Coal, chemicals and nonmetallic minerals comprise three of the highest tonnage commodities hauled on Maryland's railroads. The MDTA-owned Canton Development Company operates the Canton Railroad which provides switching services that enable private port-related industrial facilities to seamlessly access Class 1 railroad service, while State-owned short lines on the Eastern Shore provide multimodal freight options to rural agricultural, manufacturing and distribution firms. MDOT oversees the State's High Speed Intercity Passenger Rail efforts, which have brought over \$90 Million in federal funding for improvements to Amtrak's Northeast Corridor (NEC) – improvements which are collaboratively being implemented with the rail freight operators who share the use of the NEC.
- Trucks carry nearly every type of commodity, from consumer products to chemicals to machinery. Nonmetallic minerals, distribution center traffic and food products account for some of the highest tonnage hauled on Maryland's roads. By maintaining, improving and managing freight-critical highways and interstates, SHA and MDTA support economic growth in the State. Maryland's commercial vehicle enforcement and compliance program helps ensure the safe operation of trucks on Maryland's roadways.
- Water is well-suited to cost-effectively haul goods long distances. Vessels from across the globe call on the Port of Baltimore to unload imported goods and pick up goods for export. A few of the many commodities handled at MPA terminals include RoRo products, automobiles, containers and project cargo. There are many ongoing improvements at the Port of Baltimore, allowing increases to the overall processing capacity and space for storing autos and RoRo equipment. The increase in activity will have a positive impact on local and statewide jobs.



## MPA: Revenue, Operating Expense and Net Income\*

Revenues are an important measure of business activity at the MPA terminals. MPA's operating expenses are usually recovered by revenues generated. Net income is the difference between revenues and expenses.



\* This measure has been revised and is not comparable to previous reports.

\*\* The cost data are adjusted for inflation.

### Why Did Performance Change?

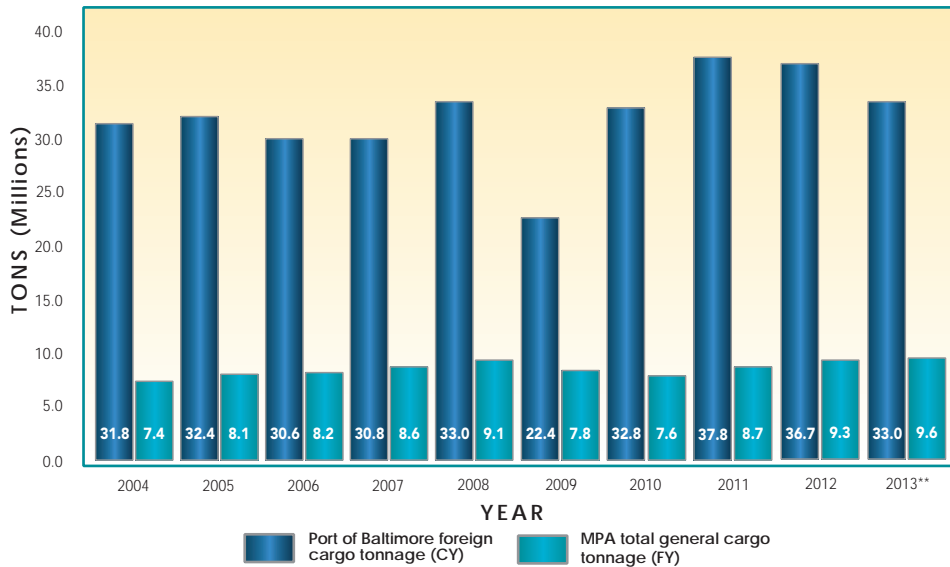
- The MPA's net income was \$6.3 million for FY 2013, as revenues were slightly more than budget, and expenditures were less than budget
- MPA's billable cargo tonnage, at nearly 11.5 million tons, was slightly better than FY 2012
- Cruise ship passenger volumes for FY 2013 were 452,529 passengers sailing on 101 cruises
- A new 50-foot deep container berth with four Super-Post-Panamax cranes became operable in FY 2013, allowing for greater container capacity
- MPA successfully controlled operating expenditures and maximized revenues throughout FY 2013

### 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
- Continue to develop business synergies with our public-private partner, Ports America Chesapeake, to maximize cargo volumes through the Port of Baltimore
- Continue promoting the Port as a convenient location for year-round cruising for the large drive-to market in the Mid-Atlantic area, and continue the partnership with existing cruise lines and develop new opportunities for additional cruise lines to come to Baltimore
- Continue to promote our region as one of the highest sourcing markets for cruise passengers; Maryland accounts for 37% of all U.S. cruise passengers in the nine-state South Atlantic Census Division, five of the states are part of our natural geographic marketing footprint
- Enhance parking options by providing online prepayment options

## 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.  
 \*\*2013 data is preliminary and subject to change.



### Why Did Performance Change?

- MPA's general cargo tonnage for FY 2013 was 9.6 million tons, an increase of 2.3% over FY 2012. This set a new fiscal year record high for MPA general cargo
- The MPA terminals experienced the greatest gains in containers (+4%), autos (+10%), and imported wood pulp (+19%)
- Compared to 2011, in 2012 Port of Baltimore general cargoes were up 8% (led by containers, Autos and Roll-on/Roll-off heavy equipment); however bulk commodities, such as iron ore, salt and gypsum dropped 5.4% for a total decline of 2.5%
- Despite this slight decrease, the value of Port of Baltimore's international cargo increased 5.1% in 2012 to \$53.9 billion
- In 2012, 652,000 auto units passed through the Port of Baltimore, ranking it number one in the United States
- RoRo agricultural equipment is in demand for both food and bio-fuel production and RoRo mining equipment is in demand due to the increase in commodity prices

### What Are Future Performance Strategies?

- Continue the Quality Cargo Handling Action Team (QCHAT) and encourage existing auto processors and RoRo customers to increase cargo volumes, efficiency and throughputs by working with them to identify new opportunities and promote the Port of Baltimore
- Develop new Dundalk gate procedures to increase volumes of privately owned vehicles as it relates to transportation worker identification credential escorts
- Construct new cargo gate for South Locust Point which will use the same technology as in place at Dundalk truck gate. This will improve security, capacity, and processing times
- Work with P3 partner, Ports America Chesapeake, to attract additional containerized cargo to the Port of Baltimore
- Widen the access channel to Seagirt Marine Terminal to allow safe transit by the next generation of larger container ships
- Attract a new container ocean carrier, and a new service to the port from an existing container carrier. Work with State and regional economic development offices to locate sites to attract new distribution centers to Maryland
- Continue to work with all stakeholders to develop the Duke property as a Distribution Center adjacent to the Port

## MPA: International Cruises Using the Port of Baltimore

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

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013* |
|--|------|------|------|------|------|------|------|------|------|------|-------|
| Number of international cruises using MPA's terminal | 35   | 59   | 28   | 28   | 29   | 27   | 81   | 90   | 105  | 100  | 91    |

Target: 95 cruises in 2014  
 \*2013 data is preliminary and subject to change.

### Why Did Performance Change?

- In 2012, the Port of Baltimore was 10th in the nation and fifth on the U.S. East Coast for the number of cruise passengers (embarks)
- Promoted the Port as a convenient drive-to location for year-round cruising
- Continued to work on cruise terminal enhancement to remain one of the top cruise ports in the U.S.
- The cruise business in CY 2013 is anticipated to bring over 200,000 passengers into Baltimore on 97 cruises and port-calls

### What Are Future Performance Strategies?

- Continue promoting the Port as a convenient location for year-round cruising
- Continue to work on cruise terminal enhancement to remain one of the top cruise ports in the U.S.: enhance the VIP lounge, install new carpet, replace the check in counters, upgrade PA system to include options for the hearing impaired, replace the ceiling fabric, enlarge restrooms, provide online prepayment options for parking, and terminal system preservation projects
- Continue the partnership with existing cruise lines and develop new opportunities for additional cruise lines to come to Baltimore
- If budget allows, expand berth and terminal facilities to handle two cruise ships per day

## 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.



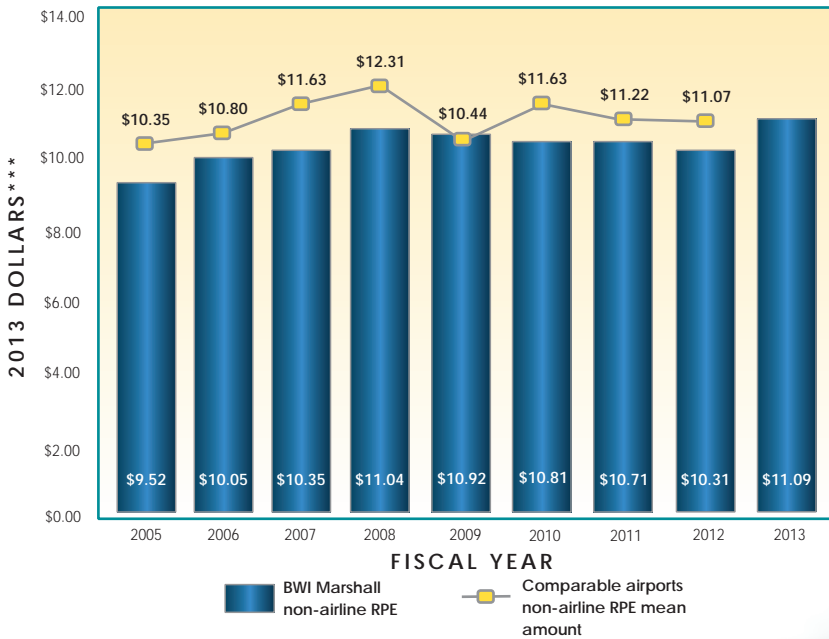
### Why Did Performance Change?

- Condor initiated new nonstop service to Frankfurt, Germany in July 2012
- Spirit began nonstop service from BWI Marshall to Dallas/Ft. Worth and Ft. Lauderdale in September 2012
- Southwest began nonstop service from BWI Marshall to Punta Cana, Dominican Republic, and San Juan, Puerto Rico
- AirTran discontinued nonstop service to Huntsville and Sarasota in August 2012 as a result of its merger with Southwest

### What Are Future Performance Strategies?

- Meet with both potential new entrant and current carriers to promote potential new air service opportunities to BWI Marshall
- Focus BWI Marshall advertising and awareness campaigns to passengers on the advantages and air service options, parking, ease of access and ground transportation options that the airport offers
- Continue to highlight BWI Marshall as the "easy come, easy go" gateway to Washington D.C.

## 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 passenger data are adjusted for inflation.

### Why Did Performance Change?

- BWI's non-airline revenue per enplaned passengers continues to increase, with a 78 cents per passenger increase from 2012 to 2013
- BWI Marshall non-airline revenue per enplaned passenger is in line with comparable airports

### What Are Future Performance Strategies?

- Continue deploying new parking strategies to increase parking revenues
- Work in conjunction with BWI Marshall's master concessionaire to enhance the existing retail, food and beverage concessions in the terminal by adding recognized local and national concepts

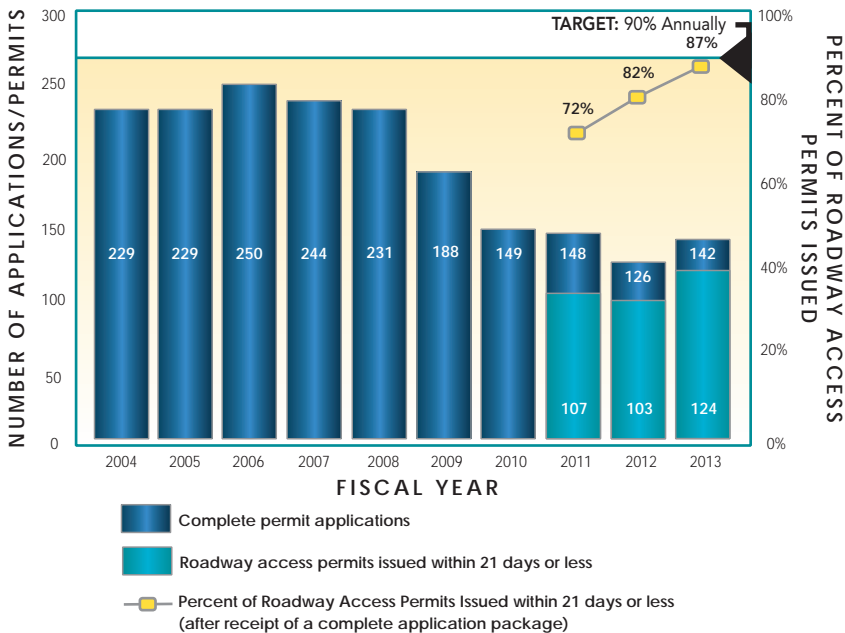




## SHA: Percent of Roadway Access Permits Issued Within 21 Days or Less (After Receipt of a Complete Application Package)\*

Access permits help promote safe and efficient roads for travel while supporting economic growth for jobs and businesses. Issuing access permits and construction of roadway and entrance improvements by developers are some of the last steps before opening businesses and/or selling commercial or residential properties for occupancy. This contributes to a larger tax base for the State, creation of jobs for businesses and redevelopment of vacant properties.

This measure tracks SHA efforts to improve customer service with a predictable, consistent and transparent process for obtaining an access permit in Maryland.



\* This is a new measure and has not previously been reported in the Attainment Report.

### Why Did Performance Change?

- Issued 87% of completed access permits applications within 21 days in FY 2013. This shows steady improvement from FY 2011 (72%) and FY 2012 (82%)
- In FY 2013, there were \$17 million dollars in private-sector-funded infrastructure improvements and approximately \$6 million in regional infrastructure improvements, because of access permits
- In FY 2012, 82% of the approximately 2,000 submissions of project documents for about 600 developer projects statewide were issued within 21 days or less

### What Are Future Performance Strategies?

- To promote an environment where all parties seek solutions to issues that may delay projects completing the permit issuance phase, continue to monitor performance and make adjustments in the process as necessary to achieve and exceed the 90% goal
- Continue to refine the processes that lead to improved communication with customers, local jurisdictions and internal staff
- To reduce the number of time-consuming, multiple project submissions by developer teams, conduct training on SHA access permit process, standards, policies and practices with consultant firms and businesses that regularly perform design work on developer projects or are repeat commercial users, with the aim of increasing the number of properly completed permit packages



## 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 on SHA, MDTA and other Maryland roadways) reflects the tangible benefits of the Coordinated Highways Action Response Team (CHART) incident management program.



Target: \$1,000 Million Annually

\* 2013 data is preliminary and subject to change.

### Why Did Performance Change?

- Incident management activities helped reduce delay by an estimated 28.5 million vehicle-hours in CY 2012
- Began pursuing an enhancement to improve travel reliability through the addition of 24 patrols during evenings and weekends in the Baltimore, Washington, and Frederick areas, expanding CHART's time of day coverage to full 24/7 operations
- Responded to and cleared more than 17,000 incidents and assisted more than 26,000 stranded motorists
- Increased camera video feed interoperability with other regional agencies to allow for access to 682 camera sites in Maryland
- Commenced work on an enhancement to the Maryland 511 traveler information system, which will provide customized information to support the commercial vehicle industry

### What Are Future Performance Strategies?

- Expand the CHART patrol coverage to reduce roadway delays and achieve additional user cost savings
- 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
- Implement projects to enhance CHART's traffic and roadway monitoring, incident management, traveler information, emergency and weather operations, and traffic management capabilities (over \$115.0 million programmed for these activities in the FY 2014–FY 2019 CTP)

# Glossary

| GLOSSARY TERM   | DEFINITION   |
|---|--|
| All Electronic Tolling (AET)                                  | Collection of tolls at highway speeds using <i>E-ZPass</i> ® transponders or video tolling; no toll booths or cash collection.   |
| 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.  |
| 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 on 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.  |
| <i>E-ZPass</i> ®  | An electronic toll collection system utilized to provide a more efficient flow of traffic through MDTA toll facilities. <i>E-ZPass</i> ® toll collection is available at all eight MDTA toll facilities. The benefits of <i>E-ZPass</i> ® membership allow travel from Virginia to Maine and as far west as Illinois, with tolls paid from a Maryland <i>E-ZPass</i> ® 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                            | All electronic toll-road from 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).   |
| MAP-21  | On June 6, 2012, the President signed into law the Moving Ahead for Progress in the 21st Century (MAP-21) P.L. 112-141 - new legislation that will stabilize funding for highway and transit programs for two years and will set national, statewide and metropolitan transportation planning and policy direction. The federal bill did not increase funding levels and also did not address the long-term solvency of the Federal Highway Trust Fund.  |
| 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.mva.maryland.gov">www.mva.maryland.gov</a> . |
| <i>Smart, Green &amp; Growing</i>                             | <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)                            | Transit-Oriented Development (TOD) is a land use strategy intended to promote efficient use of land and transportation infrastructure. TODs are places of relatively higher density, pedestrian-friendly development with a mix of land uses located within an easy walk of a bus or rail transit center. In 2008, the legislature adopted a definition of TOD. As defined in statute, a TOD is: "a dense, mixed-use deliberately-planned development within a half-mile of transit stations that is designed to increase transit ridership."  |
| Transportation Infrastructure Investment Act                  | On May 16, 2013, Governor Martin O'Malley signed into law the Transportation Infrastructure Investment Act of 2013 (Transportation Act) - new legislation that will support thousands of jobs and invests an average of \$800 million a year at full implementation and a total of \$4.4 billion over the next six years (FY 2014 - FY 2019).  |
| 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 BY AGENCY

| 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> </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   |
| Economic Prosperity                                 | Freight originating and terminating in Maryland (value and tonnage)  | Data is based upon the following sources, U.S. Department of Transportation Freight Analysis Framework (FAF3) Version 3. 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. BWI Marshall report to Airports Council International (2011); and MPA and U.S. Army Corps of Engineers (2010) |
| <b>Maryland Aviation Administration (MAA)</b>       |  |  |
| 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)  |
| 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  |
| Quality of Service                                  | Airline cost per enplaned passenger (CPE)  | Total airline-related fees / Total enplaned passengers at BWI Marshall   |
| 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"   |
| Economic Prosperity                                 | Number of nonstop airline markets served   | Nonstop flights are direct to destination without connections  |
| Economic Prosperity                                 | Non-airline revenue per enplaned passenger (RPE)   | Total non-airline revenue (ground transportation, parking, concessions, etc.) / Total enplaned passengers at BWI Marshall  |
| <b>Maryland Port Administration (MPA)</b>           |  |  |
| 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                                 | Dredged material placement capacity remaining for Harbor and Poplar Island sites   | Monitors existing capacity remaining at Harbor and Poplar Island dredged material placement sites  |
| 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  |
| 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   |
| Community Vitality                                  | Intermodal containers moved by rail through the Port   | Tracks intermodal containers that are moved by rail through the Port. This is containerized freight movement to/from MPA's terminals (particularly Seagirt & Dundalk) via CSX or Norfolk Southern railroads  |
| Economic Prosperity                                 | Revenue, operating expense and net income  | Total revenues compared to operating expense of MPA  |
| Economic Prosperity                                 | 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  |
| Economic Prosperity                                 | International cruises using the Port of Baltimore  | Number of international cruises using the Port of Baltimore as a home port   |

# Appendix: LIST OF PERFORMANCE MEASURES BY AGENCY

| MTP GOAL  | PERFORMANCE MEASURE   | DEFINITION   |
|---|---|--|
| <b>Maryland Transit Administration (MTA)</b>    |   |  |
| 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                             | Average fleet age of transit revenue vehicles   | Average fleet age of revenue vehicles to understand the status of the fleet used to transport patrons. This indicates fuel consumption, energy efficiencies, preventative maintenance needs and repair expectations  |
| Quality of Service                              | Percent of service provided on time   | Baltimore 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  |
| Quality of Service                              | Operating cost per passenger trip   | Total operating expenses / Number of unlinked passenger trips  |
| Quality of Service                              | Operating cost per revenue vehicle mile   | Operating cost for each mode / Total miles when vehicle is in service (not deadheading or down time)   |
| Quality of Service                              | Customer satisfaction rating  | Average score for: Overall satisfaction of each MTA service (Local Bus, Light Rail, Baltimore Metro and MARC)  |
| 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  |
| 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   |
| Community Vitality                              | Average weekday transit ridership   | Ridership for Local Bus, Light Rail, Baltimore Metro, MARC, Contracted Commuter Bus, and Paratransit & Taxi Access   |
| Community Vitality                              | 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   |
| <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>       |   |  |
| 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  |
| 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)   |
| Quality of Service                              | 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  |
| Quality of Service                              | Cost per transaction  | Operating costs and capitalized costs / Number of transactions   |
| Quality of Service                              | Percent of information system availability compared to total number of records maintained   | Includes availability of data records by type and systems up time  |
| 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 |

# Appendix: LIST OF PERFORMANCE MEASURES BY AGENCY

| MTP GOAL   | PERFORMANCE MEASURE  | DEFINITION   |
|--|--|--|
| <b>State Highway Administration (SHA)</b>  |  |  |
| Quality of Service   | Maryland driver satisfaction rating  | Satisfaction rating based on weighted average score for 26 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  |
| Environmental Stewardship  | Percent of compliance on erosion and sediment control ratings  | A system of structural and vegetative measures that minimize soil erosion and off-site sedimentation   |
| 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   |
| Community Vitality   | 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 urban areas as defined by the U.S. Census Bureau  |
| Community Vitality   | Percentage of State-owned roadway centerline miles with a bicycle level of comfort (BLOC) grade "D" or better and number of directional miles improved for bicycle access*                 | BLOC is an "A" to "F" scale, a formula based on many factors, including outside lane width, the presence of on-street parking, roadway speed and shoulder width and truck percentage, with the greatest driving factors being shoulder width, speed and truck percentage |
| Economic Prosperity  | Percent of roadway access permits issued within 21 days or less (after receipt of a complete application package)  | Access permits are issued to parties desiring to perform work in the SHA right-of-way and/or for the construction of entrances and public streets connecting to the State roadways   |
| Economic Prosperity  | User cost savings for the traveling public, including commercial traffic due to incident management  | Cost saving calculated using Coordinated Highways Action Response Team (CHART) incident response data  |
| <b>MEASURES SHARED BY ADMINISTRATIONS</b>  |  |  |
| <b>State Highway Administration (SHA) and Motor Vehicle Administration (MVA)</b>   |  |  |
| 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, on all Maryland roads including MDTA and locally owned facilities.  |
| <b>State Highway Administration (SHA), Motor Vehicle Administration (MVA) 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)        |
| <b>State Highway Administration (SHA) and Maryland Transportation Authority (MDTA)</b>                                     |  |  |
| System Preservation  | Percent of roadway miles with acceptable ride quality  | Percent of road with acceptable International Roughness Index (IRI) score  |
| System Preservation  | Number of bridges and percent that are structurally deficient  | Number of bridges where at least one major structural element has a condition rating of four or less (on a scale from zero (closed to traffic) to nine (relatively new))   |
| Community Vitality   | Percent of VMT in congested conditions on freeways/ expressways and arterials in Maryland during the PM peak hour  | Annual average daily traffic / Number of through lanes   |

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\* In the future, Bike and Pedestrian Attainment Report performance measures might include Attainment Report Advisory Committee (ARAC) approved updates and modifications that result from the Bike and Pedestrian Master Plan update.

# Appendix: LIST OF PERFORMANCE MEASURES BY GOAL

|                              |  |
|------------------------------|--|
| <b>Safety &amp; Security</b> | <b>13</b>  |
| MVA/SHA/MDTA                 | Annual number of traffic fatalities and personal injuries on all roads in Maryland ..... 14                                    |
| MVA/SHA                      | Number of bicycle and pedestrian fatalities and injuries on all Maryland roads ..... 15  |
| MTA                          | Customer perceptions of safety on the MTA system ..... 16  |
| MTA                          | Preventable accidents per 100,000 vehicle miles ..... 16   |
| MAA                          | Rate of airfield ramp incidents and accidents per 1,000 operations ..... 17  |
| MAA                          | BWI Marshall crime rate ..... 17   |
| MAA                          | Number of repeat discrepancies in the annual Federal Aviation Administration’s Federal Aviation Regulation inspection ..... 18 |
| MPA                          | MPA compliance with the Maritime Transportation Security Act of 2002 ..... 18  |
| MVA                          | Percent of Homeland Security REAL ID Act benchmarks achieved ..... 18  |

|                            |   |
|----------------------------|---|
| <b>System Preservation</b> | <b>19</b>   |
| SHA & MDTA                 | Percent of roadway miles with acceptable ride quality ..... 20                            |
| SHA & MDTA                 | Number of bridges and percent that are structurally deficient ..... 20                    |
| MPA                        | Dredged material placement capacity remaining for Harbor and Poplar Island sites ..... 21 |
| MTA                        | Average fleet age of transit revenue vehicles ..... 22                                    |

|                           |   |
|---------------------------|---|
| <b>Quality of Service</b> | <b>23</b>   |
| SHA                       | Maryland driver satisfaction rating ..... 24  |
| SHA                       | Percentage of the Maryland SHA network in overall preferred maintenance condition ..... 24          |
| MTA                       | Percent of service provided on time ..... 25  |
| MTA                       | Operating cost per passenger trip ..... 26  |
| MTA                       | Operating cost per revenue vehicle mile ..... 27  |
| MTA                       | Customer satisfaction rating ..... 28   |
| MVA                       | Branch office customer visit time versus customer satisfaction rating ..... 29                      |
| MVA                       | Alternative service delivery transactions as percent of total transactions ..... 29                 |
| MVA                       | Cost per transaction ..... 30   |
| MVA                       | Percent of information system availability compared to total number of records maintained ..... 30  |
| MAA                       | Airline cost per enplaned passenger (CPE) ..... 31  |
| MAA                       | Percent of BWI Marshall customers rating the airport “good” or “excellent” on key services ..... 31 |
| MPA                       | Average truck turn-around time at Seagirt Marine Terminal ..... 32                                  |
| MDTA                      | Overall customer satisfaction of <i>E-ZPass</i> ® customers ..... 32                                |
| MDTA                      | Percent of toll transactions collected electronically ..... 32                                      |

|                                  |  |
|----------------------------------|--|
| <b>Environmental Stewardship</b> | <b>33</b>  |
| SHA                              | Percent of compliance on erosion and sediment control ratings ..... 35   |
| SHA                              | Total fuel usage of the light fleet ..... 35   |
| MPA                              | Acres of wetlands or wildlife habitat created, restored, or improved since 2000 ..... 36   |
| MVA                              | Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program (VEIP) versus customer wait time ..... 36 |
| MDOT/SHA /MTA                    | Travel Demand Management; Transportation Emission Reduction Measures (TERMs) ..... 37  |
| MDOT                             | Transportation-related emissions by region ..... 39  |
| MDOT                             | Transportation-related greenhouse gas emissions ..... 40   |

# Appendix: LIST OF PERFORMANCE MEASURES BY GOAL

|                            |  |           |
|----------------------------|--|-----------|
| <b>Community Vitality</b>  |  | <b>41</b> |
| MTA                        | Average weekday transit ridership.....   | 43        |
| MTA                        | Annual revenue vehicle miles of service provided.....  | 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*..... | 45        |
| SHA                        | Percentage of State-owned roadway centerline miles with a bicycle level of comfort (BLOC) grade “D” or better*.....  | 45        |
| SHA                        | Number of directional miles improved for bicycle access.....   | 45        |
| SHA & MDTA                 | Percent of VMT in congested conditions on freeways/expressways and arterials in Maryland during the evening peak hour.....   | 46        |
| MPA                        | Intermodal containers moved by rail through the Port.....  | 46        |
| <b>Economic Prosperity</b> |  | <b>47</b> |
| TSO                        | Originating and terminating freight in Maryland.....   | 48        |
| MPA                        | Revenue operating expense and net income.....  | 49        |
| MPA                        | Port of Baltimore foreign cargo and MPA general cargo tonnage.....   | 50        |
| MPA                        | International cruises using the Port of Baltimore.....   | 50        |
| MAA                        | Number of nonstop airline markets served.....  | 51        |
| MAA                        | Non-airline revenue per enplaned passenger (RPE).....  | 51        |
| SHA                        | Percent of roadway access permits issued within 21 days or less (after receipt of a complete application package).....   | 52        |
| SHA                        | User cost savings for the traveling public due to incident management.....   | 52        |

*\* In the future, Bike and Pedestrian Attainment Report performance measures might include Attainment Report Advisory Committee (ARAC) approved updates and modifications that result from the Bike and Pedestrian Master Plan update.*



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