2015 Annual ATTAINMENT REPORT

ON TRANSPORTATION SYSTEM PERFORMANCE

Implementing the Maryland Transportation Plan & Consolidated Transportation Program





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						
The State of Ma	The State of Maryland Also Supports:						
WMATA	Washington Metropolitan Area Transit Authority						

Table of Contents

Introduction & Overview	1
Safety & Security.	13
System Preservation	
Quality of Service	23
Environmental Stewardship	
Community Vitality.	41
Economic Prosperity	47
Glossary	53
List of Performance Measures	

Summary Below are some of the performance results over the past year contained in this 2015 Report.

🕗 Safety & Security

- Maryland's Calendar Year (CY) 2013 fatality rate of 0.83 fatalities per 100 million miles of travel is similar to other states in the region and 27% below the national rate. There were 45 less fatalities on Maryland roadways in 2013 compared to 2012 (a 9% decrease from 511). The fatality and injury rates, and the number of fatalities and injuries represent the lowest values over the past decade.
- The number of pedestrian fatalities on all roads in Maryland increased from 96 in CY 2012 to 110 in CY 2013. SHA, in coordination with local governments and community leaders, formulated pedestrian safety action plans for eight high crash locations and performed pedestrian safety audits in four high crash locations in Ocean City and Montgomery, Prince George's and Baltimore counties.
- SHA continues to implement its bicycle policy which requires all projects to
 evaluate the inclusion of improvements for bicyclists, such as the marking of
 bicycle lanes or shared use lanes, and to install these improvements where
 feasible within the project's scope.
- Based on preliminary data for CY 2014, the preventable accident rate on MTA Local Bus services is projected to marginally decrease from the CY 2013 level. This reflects sustained improvement given the nearly 39% decrease that occurred in 2013.
- In Fiscal Year (FY) 2014, the rate of airfield ramp incidents and accidents at Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall) decreased to 0.064 per 1,000 operations, remaining well below the average airfield rate of 0.244 as reported by Airports Council International.
- All of MPA terminals' Facility Security Assessment and Facility Security Plans currently meet Maritime Transportation Security Act requirements and for the past six years have received excellent ratings following the U.S. Coast Guard's annual inspection.

📀 System Preservation

- In 2014, 86% of SHA and MDTA roadway mileage provided an acceptable ride quality. This exceeded the long term target of 84%.
- As a result of continuing aggressive bridge rehabilitation, by April 2014, SHA and MDTA had reduced the number of State-owned structurally deficient bridges to 82 (approximately 2.8% of all bridges statewide). In FY 2014, a total of eight SHA structurally deficient bridges were rehabilitated and numerous other proactive system preservation projects were underway, including receiving bids for nine major bridge rehabilitations, one deck overlay, 76 bridges for painting and about 250 minor bridge rehabilitations.
- On average, there are 0.6 million cubic yards (mcy)/year of Harbor maintenance dredging and 0.9 mcy/year of new work dredging in the Harbor to make improvements to the channel system. The current capacity of dredged material placement sites is well below the MPA target of 20 years of capacity.
- The average age of the MTA MARC rail car fleet decreased to 17 years as MTA started receiving the first of 54 scheduled new bi-level cars from Bombardier, the MARC contracted operator.



Quality of Service

- Percent of the SHA network in preferred maintenance condition remained constant in CY 2014 compared to prior years. The extended winter season limited typical springtime maintenance activities, resulting in a lower level of service than expected for line-striping, ditches and culverts.
- On time performance of MTA services in FY 2014 met or exceeded 2014 performance targets for all modes except Local Bus and Mobility/Taxi access. Mobility/Taxi access did improve by two percentage points over 2013, nearly reaching the higher 2014 goal of 92%. MTA is continuing to invest in Automatic Vehicle Location (AVL) systems to obtain a more accurate picture of Local Bus performance.
- Operating cost per MTA passenger trip increased slightly due to rising fuel costs, contract increases and labor agreements. Cost increases have been largely consistent with long term trends of steady or increasing ridership, and better contractual management have kept cost growth below historic levels.
- In FY 2014, average truck turn-around time at Seagirt Marine Terminal for both single and double moves fell below MPA targets and reflected improvement from FY 2013.
- Due to an increase of 523,000 transactions, the average customer visit time at MVA branch offices increased from 33 minutes in FY 2013 to 35 minutes in FY 2014. However, an even greater increase in average customer visit time was avoided due to Alternative Service Delivery (ASD) transactions increasing from 39.0% in FY 2013 to 40.2% in FY 2014.
- The customer experience at BWI Marshall continues to exceed its target. In FY 2014, 87% of surveyed BWI customers stated that they were likely to fly from BWI Marshall on their next trip, an increase from the 85% recorded in FY 2013.
- The percent of toll transactions collected electronically increased six percentage points from FY 2013 to FY 2014 due to a significant increase in *E-ZPass®* accounts partly resulting from MDTA's public outreach campaign as well as an 18% increase in traffic along the Intercounty Connector (ICC)/MD 200.



Environmental Stewardship

- SHA performed over 4,000 Erosion and Sediment Control (ESC) inspections with only 17 non-compliance findings in FY 2014 for a compliance rate of 99.6%. MDTA performed 1,198 ESC inspections with one non-compliance finding in FY 2014 for a compliance rate of 99.9%.
- Total fuel usage of SHA's light fleet increased to 706,902 gallons in FY 2014, in line with the prior four-year average, but a 7% increase over FY 2013. While SHA has evolved the fleet to maximize light-duty vehicle fuel efficiencies and minimize idling, improvement in efficiency of trucks and construction equipment continues to lag behind (in part due to technology limitations and performance requirements).
- MPA created, restored or improved 16 acres of wetland and wildlife habitat in CY 2014 and continued to serve as a strong supporter of activities at the Masonville Cove Environmental Education Center.
- 1.7 million vehicles were tested at MVA Vehicle Emissions Inspection Program (VEIP) stations in FY 2014, with 92% of vehicles in compliance and an average customer wait time of 6.3 minutes, well below MVA's 15 minute wait time target.
- 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 919.8 million vehicle miles traveled (VMT) in CY 2014, resulting in less air pollution and reduced greenhouse gas (GHG) emissions.
- In FY 2014, 50 40-foot hybrid diesel-electric buses were delivered to MTA and are now in revenue service. These new buses bring the share of alternative fuel buses in MTAs fleet up to 85%.
- The FY 2015–FY 2020 CTP includes a \$598.8 million to plan, design and construct stormwater controls and alternative water quality improvement strategies adjacent to Maryland roadways to help meet the TMDL requirements.



- Total average weekday transit ridership decreased from 405,972 in FY 2013 to 376,209 in FY 2014. Despite severe winter weather, ridership gains occurred in FY 2014 with the opening of weekend Penn Line service, increased trains on the Camden Line and Commuter Bus service.
- The proportion of State-owned roadway miles within urban areas that have sidewalks increased to 22% in FY 2014, while the proportion of sidewalks that are ADA compliant increased to 66%.
- Since 2011, SHA has nearly doubled the directional miles of bicycle lanes and shared use lanes (from 52.8 miles to 119.4 miles), helping to steadily increase the bicycle level of comfort on Maryland roadways.
- Congestion levels on Maryland's arterials remained relatively stable while levels on freeways/expressways improved in CY 2013.
- In FY 2014, 19,400 intermodal containers were moved by rail through the Port of Baltimore, an increase of 300 over FY 2013 (total containers moved by rail have now surpassed pre-recession activity).



- The value of originating and terminating freight in Maryland in CY 2013 totaled over \$445 billion, an increase of \$15 billion over CY 2012. The value covered over 346 million tons of freight transported by air, rail, truck and water.
- In FY 2014, MPA handled 9.6 million tons of general cargo, which is a new FY record at a 0.5% increase over FY 2013. The greatest increase was in automobiles (+10.6%), making the Port the largest automobile port in the nation.
- Nonstop service was offered from BWI Marshall to 74 markets in FY 2014. Alaska Airlines became the newest carrier at BWI Marshall when they began service to Seattle in September 2014.
- SHA's Coordinated Highways Action Response Team (CHART) incident management program saved motorists and commercial carriers \$1.16 billion in user costs and reduced delay on Maryland roadways by 32.7 million vehicle hours in CY 2013.



Introduction & Overview

Guiding Maryland's Transportation System

The Maryland Department of Transportation (MDOT) continually faces new challenges and opportunities in maintaining the safe and efficient operation of Maryland's roadways, toll facilities, railways, buses, bicycle routes, sidewalks, airports, ports and motor vehicle services. To report on the status of the system and progress toward MDOT goals, once a year, MDOT publishes the Attainment Report (AR), which is part of the State Report on Transportation (SRT). The SRT also consists of the Maryland Transportation Plan (MTP), and the Consolidated Transportation Program (CTP).

The 2035 MTP (effective as of calendar year (CY) 2014) establishes the agency's vision, mission and goals for the next 20 years. As prescribed by both State and federal law, in partnership with State agencies, jurisdictions, and stakeholder groups, MDOT updates the MTP every five years to address current and future transportation conditions, challenges and needs. In 2014, MDOT also released the updated Bicycle and Pedestrian Master Plan, which establishes a 20-year vision to support cycling and walking as modes of transportation in Maryland. The CTP, the State's six-year capital investment program for transportation, identifies funding for specific road, bridge, transit, aviation, port, pedestrian and bikeway projects based on the framework and priorities established in the MTP.

The Attainment Report serves as an annual statewide report on "Transportation System Performance" exploring how MDOT and its modal agencies have worked together in the past year and assessing progress towards achieving goals and objectives of the MTP. Each chapter presents the progress made and the future strategies for each of the six MTP goals:

- 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 is responsible for coordinating statewide transportation planning, programming and coordination with its five modal agencies, the Maryland Transportation Authority (MDTA), and the Washington Metropolitan Area Transit Authority (WMATA) to facilitate the strategic development of Maryland's intermodal transportation system. The agencies are:

- 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) serves as the gateway to Maryland's 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 17,063 lane miles of roads and 2,570 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 is a funding partner of the regional Washington Metropolitan Area Transit Authority (WMATA), which operates Metrorail and Metrobus service in the greater Washington, D.C. region.

Ensuring Strategic Transportation Investments and Supporting Economic Growth

To ensure that Maryland's transportation funding is strategically allocated and efficiently spent, MDOT employs a strategic decision making process based on the State's priorities and the goals of the 2035 MTP. MDOT works closely with Maryland residents, businesses, local jurisdictions, metropolitan planning organizations (MPOs), local and State-elected officials to select projects that keep the existing transportation system working smoothly and make other investments to the transportation system to enhance safety, connectivity, accessibility and mobility. Guided by these considerations, MDOT's strategic investments in CTP projects implement the State's priorities, including supporting economic development and jobs, transit improvements, system preservation, Public Private Partnerships (P3), Transit-Oriented Development (TOD), bicycle and pedestrian travel, environment, safety and security, and freight.

For more information on the FY 2015–FY 2020 CTP, please visit: www.CTP.maryland.gov

Travel by Land

- MTA ridership reached 156.3 million in Fiscal Year (FY) 2014, including 42.5 million riders on Locally-Operated Transit Systems (LOTS). In addition, nearly 121.2 million riders in FY 2014 used the WIMATA system in Maryland. To provide more transit options, MTA is advancing projects which would expand the fixed guideway transit network, including the Red Line, Purple Line and Corridor Cities Transitway (CCT) projects.
- In 2014, as part of the Cycle Maryland initiative, MDOT announced more than \$2.3 million in Bikeways Program Grants to fund 23 projects in six counties and eight municipalities.
- SHA, along with MDTA, continues to emphasize bridge condition improvements, an area of primary focus for the state. Among the SHA projects currently under construction are the I-695 Baltimore Beltway Inner Loop bridge over US 1, Leeds Avenue and Amtrak, the MD 331 Dover Road bridge over the Choptank River, the MD 272 bridge over Amtrak, the US 13 bridge over Pocomoke River, and the MD 261 bridge over Fishing Creek. As of CY 2014, the number of structurally deficient SHA bridges is at its lowest level since tracking began.
- In FY 2014, the Coordinated Highways Action Response Team (CHART) incident management program supported police with traffic control at more than 20,000 incidents and assisted more than 33,000 stranded motorists. CHART uses on-the-road response along with the latest technologies (closed circuit television (CCTV), dynamic message signs, weather pavement sensors, speed sensors) to keep travelers safe and traffic moving.
- SHA completed the Climate Change Adaption Plan with Detailed Vulnerability Assessment (Pilot Study) in Anne Arundel and Somerset counties. Results of the study will aid in assessing the vulnerability of SHA's transportation infrastructure and identify adaptation measures for future asset management.
- MDTA continues to deliver high-priority system preservation projects, such as underwater repairs at the Hatem Bridge, multi-facility structural steel painting projects and cable rewrapping and dehumidification on the Bay Bridge, study and design work on an eastbound Bay Bridge deck rehabilitation, concrete repairs to the interior of the Fort McHenry Tunnel, major pavement overlay on I-95 (John F. Kennedy Highway), and joint repairs and deck overlay of bridges south of the Fort McHenry Tunnel.
- MDTA opened the new \$26 million Chesapeake House Travel Plaza six weeks ahead of schedule to better serve the growing number of travelers along I-95 in Cecil County.
- Significant progress continues to be made across the 16 designated TOD locations across Maryland. There are currently eight sites undergoing active development, along with the 2014 groundbreaking of the Annapolis Junction Town Center, a mixed-use development at the Savage MARC Station in Howard County and the new Maryland Department of Housing and Community Development (MDHCD) headquarters at the New Carrolton MARC Station in Prince George's County, which will serve as the future eastern terminus for the Purple Line.

- Over 12.7 million MVA transactions were processed in FY 2014, including eMVA and walk-in transactions at MVA's branch office locations. MVA continues to reduce customer wait times through alternative service delivery (ASD) methods including U.S. mail, kiosk, interactive voice response system and the Internet, concurrently with a increase in staffing levels. Overall, the MVA processed more than 5.8 million walk-in branch customers.
- In FY 2014, there were over 4.1 million licensed drivers and 4.9 million registered vehicles in Maryland. Almost 70% of Maryland's entire population possesses a driver's license.

Travel by Air

- More than 22 million passengers traveled through BWI Marshall to domestic and international destinations in FY 2014.
- On average, 638 domestic passenger flights arrive or depart from BWI Marshall, moving approximately 61,639 passengers each day in 2013.
- 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 781 times in FY 2014.
- The number of international passengers using BWI Marshall continues to grow due to a combination of new carriers and expanded international service from Southwest as it finalizes the integration of AirTran into its network. Southwest also plans to add nonstop service from BWI Marshall to San Jose, Costa Rica in March 2015, and Los Cabos, Mexico in June 2015.
- To meet additional needs of international air service at BWI Marshall, MAA is constructing a secure connector between Concourse D and Concourse E, creating a new security checkpoint to serve domestic and international travelers, and configuring airline gates to support additional international flights (construction started Fall 2014).

Travel by Water

- MPA general cargo tonnage set a new record high at 9.6 million tons in FY 2014. The whole Port's foreign cargo tonnage is projected to drop slightly to 29 million tons in CY 2014 (from 30.3 million tons in CY 2013).
- In CY 2014, 89 international cruises embarked and disembarked at the MPA Cruise Maryland terminal, serving over 402,000 passengers.
- The Port of Baltimore's national rankings include the following: #1 in Autos and Roll-on/Roll-off (RoRo) Heavy Equipment; #1 in imported: Sugar, Gypsum, Alumina and Forest products; #2 in exported Coal; #9 in the value of foreign cargo (\$52.6 billion); and #14 in foreign cargo tonnage (30.3 million tons).



Promoting Environmentally Sustainable Transportation

Through leadership and guidance in the areas of environmental compliance, stewardship and sustainability, MDOT, MDTA and the agencies have a proven record of being national leaders in both long-range environmental planning and policy programs, and day-to-day operations. MDOT believes that protecting human health and natural resources and implementation of environmentally sustainable business practices are essential elements of its mission. MDOT is committed to environmental compliance, continuous improvement in environmental performance and effective interaction with its employees, other government agencies and the community.

Through close coordination with the agencies, MDOT maintains a consistent message to the public and stakeholders on environmental activities and works diligently to ensure ongoing regulatory compliance. This approach has lead to successful collaboration across agencies, and resulted in a unified framework for reducing transportation impacts to human health and the environment, while also preparing transportation systems and infrastructure for a changing climate.

MDOT's approach to promoting environmentally sustainable transportation covers both MDOT's business practices as well as the agency's approach to project delivery. This includes management and employee commitment to environmental-related goals and policies; strict compliance with all applicable environmental laws and regulations; responsible management of environmental resources; minimizing impacts of activities on the environment through effective planning, project development, operations and maintenance procedures; and including environmental performance goals into planning processes to ensure that regulatory requirements, pollution prevention and opportunities to minimize life cycle impacts are addressed in program and project management.

MDOT Transportation Trust Fund Sources FY 2015-FY 2020 CTP



Maryland's Investment in Transportation

Maryland's investment approach and the structure of decision making allows MDOT to set funding according to multimodal priorities, and to consider the needs of the integrated intermodal transportation system as a whole rather than through a prescriptive legislative formula. MDOT applies fiscal resources from the Transportation Trust Fund (TTF) towards projects and programs across all MDOT modal agencies. The TTF major revenue sources include components of the motor fuel tax (base tax rate, inflation adjustment, and sales and use tax equivalent); vehicle titling tax, motor vehicle registration fees; a portion of the corporate income tax; operating revenues from MAA, MPA and MTA, as well as other miscellaneous MVA fees; and federal formula and discretionary funds. MDOT dedicates these funds to support all of the activities necessary to provide Maryland's integrated system—from transportation planning to implementing transportation solutions that support priority operating and capital needs across the state.

MDOT works with the existing and projected resources of the TTF, which are impacted by State and national economic conditions, projections of State transportation revenue and the availability of federal funding. The Maryland Transportation Infrastructure Investment Act, enacted in 2013, continues to provide Maryland with a more sustainable funding source to support additional transportation projects, benefitting both rural and urban areas. MDOT continues to address important capital and operating needs including congestion relief, safety improvements, transit availability and maintaining the competitiveness of the Port of Baltimore and BWI Marshall. These projects funded by the Transportation Act are included in the FY 2015–FY 2020 CTP, which totals about \$15.8 billion; \$14.5 billion of which comes through the TTF and \$1.3 billion from other fund sources. Other sources include 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 support economic prosperity in the state. For example, to preserve and safeguard the safe operation of Maryland transportation agencies' investments, \$1.1 billion is programmed in FY 2015 toward system preservation to fund maintenance of infrastructure assets. MDTA will allocate, out of separate MDTA funds, \$2.0 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 2014, for example, MDOT expended 93% of its budgeted dollars, meeting its goal of 90%, and MTA spent 80% of its FY 2014 budget.

MDOT's capital and operating budget allocations, CTP funding levels over the last decade, the FY 2015–FY 2020 CTP funding sources and capital and operating budgets by modal administration and WMATA are shown in the pie charts. As MDTA is independently funded through separate sources, its capital and operating budget are shown separately.



MDOT Capital Budget (Millions) FY 2015-FY 2020 CTP



Total MDOT Capital Budget: \$15.84 Billion

* The FY 2015–FY 2020 CTP totals about \$14.5 billion; \$1.3 billion of which comes through the Trust Fund and \$700 million from "Other" fund sources, including earned interest from trust funds, reimbursements and miscellaneous revenues.





Total MDOT Operating Budget: \$1.77 Billion

MDTA Capital Budget (Millions) FY 2015-FY 2020 CTP





Total MDTA Capital Budget (Including ICC/MD 200): \$2.0 Billion

MDTA Operating Budget (Millions) FY 2015



Total MDTA Operating Budget: \$285.1 Million

The MDOT Total Capital Program Levels chart 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 (white 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.

MDOT Total Capital Program Levels (Billions)



Accommodating Travel Demand

From 2009 to 2014, total Vehicle Miles Traveled (VMT) in Maryland has remained relatively steady (a 0.2% increase from 2009 levels), remaining below the 2007 peak of nearly 57 billion VMT. In 2014, Marylanders, visitors and freight carriers are estimated to have driven a total of 56.6 billion miles, a slight increase compared to 56.5 billion in 2013. Transit ridership on MTA and LOTS in Maryland had increased from 144 million riders in FY 2007 to 156 million riders in FY 2014 (an 8.54% increase). While VMT has remained relatively steady, VMT per capita has steadily decreased. This data reflects a change in traveler behavior, including more people accessing alternative forms of transportation and fewer and shorter trips. The data also acts as an indicator reflecting that an increasing share of new development is occurring as compact or mixed-use, which typically show lower levels of VMT per household compared to traditional low-density development. Recognizing that travel demand trends may vary across the state and evolve with economic growth, MDOT will continue to monitor changes in travel demand in order to accommodate travel needs across all modes.

The Maryland Department of Planning projects Maryland's population will be nearly 6.9 million by 2040, an increase of 16% from 5.9 million in 2014. The location of population and employment growth affects the transportation system and improvements necessary to meet those demands. Conversely, investments in the multimodal transportation system can affect the geographic distribution of population and employment growth in the state. The Priority Funding Areas (PFAs) Act of 1997 establishes growth areas designated by the local jurisdictions and the State as geographic areas for targeting state investment and infrastructure. As codified in \$5-7B of the State Finance and Procurement Article of the Annotated Code of Maryland, MDOT and other state agencies are restricted from investing in growth-related infrastructure outside of these areas. To provide safe, efficient connections between jurisdictions, such as maintaining connectivity within the transit system, and for other activities such as bridge replacement and dredge material placement, the State must also consider investment outside of these areas. In such cases, close coordination with local jurisdictions can help ensure that the infrastructure does not inadvertently promote urban sprawl.

Projected strong growth in jobs in Maryland, nearly 24% from 2010 to 2040, and population growth is anticipated to increase utilization of MVA resources for vehicle licensing, permitting and registration. For this reason, legislation was passed to increase license renewal periods to eight years, effectively reducing additional strain on this resource and on user wait times. In addition, the MVA's ASD initiative for online driver's license renewal and vehicle registration renewal has been a positive step toward accommodating current and future demand. Continued monitoring of long-term population growth and ridership trends allows for these types of appropriate policy responses that will maintain a reliable and efficient transportation system in Maryland.

Maryland will meet the challenges of increased travel demand through a multimodal, sustainable, reliable, safe and efficient transportation system. To encourage sustainable land use and development patterns, capacity additions must be strategic and include enhancements to existing roadway and transit systems to provide greater efficiency. To achieve this, State transportation agencies are implementing strategies to improve signal timing and coordination, developing faster incident response times, adopting variable pricing on tolls, investing in the Core Bus Computer Aided Dispatch (CAD) Automatic Vehicle Location (AVL) system to improve reliability, and improving traveler information systems. MDOT and SHA are also implementing TOD and Complete Streets policies that promote transit supportive and walkable communities for many different types of users. These forward-thinking solutions will allow Maryland to not only address growing demand, but also create a safe and reliable environment for transit and multimodal users.



FY 2014 MDOT Major Transportation Projects Spending

Total MDOT Major Transportation Projects: \$864.8 Million

* Expenditures related to "Funding outside of PFAs" includes 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)/MD 200.

** 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



*2014 data is preliminary and subject to change.

MVA Transactions (Thousands)

	2007	2008	2009	2010	2011	2012	2013	2014
Registered Vehicles	4,752	4,774	4,736	4,816	4,809	4,822	4,824	4,872
Driver's Licenses Issued	3,937	3,995	4,049	4,082	4,083	4,102	4,140	4,143
Motorcycle Licenses Issued	237	244	252	257	217	224	274	275
Commercial Driver's Licenses Issued	164	167	168	170	173	177	180	188
Total MVA Transactions Per Year	12,542	12,388	12,263	11,011	11,917	11,995	12,217	12,740

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.

Congestion reduction and travel time savings benefits provided through roadway capacity increases are often not sustainable as drivers choose to make longer and more frequent trips in the short-term, increasing roadway travel demand.

In this case, induced travel can lead to increased air pollution, energy consumption and noise. Because of these potential impacts, MDOT and its partners are proactively managing induced travel through a number of approaches.

To mitigate growth in travel demand, Maryland supports 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. TDM helps to reduce single-occupancy vehicle usage and VMT, generally translating into lower commuting costs, reduced parking needs and decreased emissions. MDOT provides funding to support 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

MDOT focuses its capital transportation planning and programming approach on maintaining and improving multimodal mobility and accessibility for Maryland residents and businesses. A balanced multimodal approach requires consideration of numerous factors, many that vary by place and affect the efficient delivery of a multimodal transportation system. This includes, for example, differing transportation needs in rural and urban areas, differing travel patterns depending on type of trip, and differing travel preferences based on the type of household. It also acknowledges the interactions among modes (as recognized in SHA's Complete Streets Policy), and the importance of land use that is connected, dense, diverse, and designed to be supportive of alternative modes, especially in State designated TOD areas. MDOT collaborates with professionals across many disciplines and across multiple agencies, and seeks input from Marylanders across the state to determine transportation needs; then implements costeffective, coordinated solutions to address them.

The FY 2015–FY 2020 CTP provides funding for transit in a variety of Maryland contexts, including rural areas, cities and metropolitan regions, and for a diversity of trip types. To support commuters, MTA is investing in rail and station infrastructure, locomotive and rail car fleets, and technology and safety systems to maintain and improve MARC service and continue to meet passenger demand. The MARC Growth and Investment Plan (MGIP) update finalized in 2013 provides a framework for MARC service to increase ridership, improve service, maintain a state of good repair and enhance the customer experience. Through the Transit Modernization Program (TMP), MTA is working to modernize the entire MTA transit system throughout the state. MTA also focuses attention on Commuter Bus service, including the Southern Maryland Commuter Bus initiative and building park-and-ride lots at Charlotte Hall, Dunkirk and Waldorf.

Collectively, MTA systems support multiple mobility needs covering all of Maryland. In the Baltimore region, MTA also operates Local Buses, Light Rail, the Baltimore Metro Subway and a comprehensive Paratransit (Mobility) system. MTA also directs funding and statewide assistance to LOTS serving each of Maryland's 23 counties, providing approximately \$113.8 million in federal and State grants in 2013.

MDOT seeks to integrate accommodations for walking and bicycling into all appropriate projects, and has several programs specifically directing additional funding to walking and biking. MDOT also recognizes 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. The FY 2015–FY 2020 CTP includes \$188.9 million programmed for bicycle and pedestrian projects.

Most Marylanders rely on the use of an automobile for mobility, and tend to drive alone. MDOT works with SHA and MDTA to prioritize strategic investments in Maryland's roadway system that support and enhance access to markets across the globe, support jobs within the state, provide for safe and secure travel, and optimize the efficiency of the system through new technology. This includes continued investment in CHART (over \$41 million in the FY 2015–FY 2020 CTP), construction work to complete the (now-open) I-95 Express ToII Lanes (ETL) and the ICC/MD 200, investment in new technology supporting all-electronic-tolling (AET), and multimodal investment to support the multiyear implementation of the State's Base Realignment and Closure (BRAC) Action Plan.

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 121.2 million passengers used the WMATA Metrorail, Metrobus and MetroAccess system in Maryland in FY 2014. WMATA connects to many other local and regional transit modes in Maryland including Montgomery County Ride-On, Prince George's 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/

WMATA Capital Improvement Program (CIP): WMATA's \$5.6 billion FY 2015–FY 2020 CIP advances safety improvements, infrastructure maintenance, rehabilitation and replacement, including replacing the oldest railcars with new 7000-series vehicles, and Metro 2025 investments such as the 8 Car Train Program.

Maryland's FY 2015–FY 2020 CTP includes \$936.3 million to WMATA to support implementation of the CIP. Of this amount, \$25 million represents Maryland's share of the \$75 million regional commitment to Metro's 2025 initiative.

Transit-Oriented Development: MDOT and WMATA have an active partnership, in collaboration with local governments and the private sector, 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)



* 2014 data is preliminary and subject to change.

Transit Ridership–MTA Direct-Operated Services (Thousands)



Transit Ridership-Contracted Services and LOTS (Thousands)



* MTA adjusted historic bus ridership to reflect current reporting methods.

** LOTS 2013 data point was revised from the 2014 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

Each day, Marylanders are faced with decisions about how they will travel from their homes to schools, employers, shopping and other destinations, each decision with a different range of travel times and costs. These choices may include a drive on a State highway, a ride on a transit network, ridesharing with a colleague, walking or riding a bicycle to work or to a transit station, or parking and riding transit. With some of the highest average commute times in the nation, MDOT continues to enhance the transportation options, improve services, and add infrastructure for commuters in Maryland.

In the Washington and Baltimore regions, highway congestion and parking costs encourages commuters to telecommute, or to leave their vehicles at home during the weekdays, choosing instead to use alternative modes such as ridesharing, transit, bicycling and walking. Maryland is one of the top five states in terms of the highest share of commuters who use an alternative mode when commuting to work, 26%, compared to the national average, 23%, according to the U.S. Census Bureau American Community Survey (ACS). The State has also continued to lead the nation in bicycle and pedestrian use, offering commuters several different bicycle sharing and car sharing programs that provide them new forms of mobility and connections between modes. The most recent ACS is showing that long term trends of commuting, primarily by private vehicle, are changing. For the first time in decades, the share of national commuters traveling by private vehicle declined from 86.5% in 2007 to 85.8% in 2013, a decrease seen in Maryland also. Although a small change, this decline indicates the increasing importance, and availability, for commuters to travel by modes including transit, biking and walking.

The FY 2015–FY 2020 CTP includes projects that convey this wide range of transportation choices for Maryland's residents, including \$2.9 billion for the Red Line Transit project, \$2.4 billion for the Purple Line Transit project, \$2.0 million towards planning for a Bus Rapid Transit line in Howard County, \$107 million to widen I-695 from US 40 to MD 144 in Baltimore County, \$46 million for the construction of I-81 bridges over the Potomac River in Washington County, and \$246 million to support local transit.

Maryland is also paving the way for innovative cycling and pedestrian programs and investments. In January 2014, MDOT released the updated Bicycle and Pedestrian Master Plan, which establishes a 20-year vision to support cycling and walking as modes of transportation in Maryland. Several programs advocate for bicycling in the state, including the Maryland Bikeshare Program, Cycle Maryland, and the Maryland Bikeways Program. For example, the Maryland Bikeshare and Bikeways programs, first implemented in 2012, are continuing to provide new opportunities for bicycling throughout Maryland, with nearly \$11.3 million in ongoing awards in FY 2014. The State has also fully embraced a holistic view of designing and planning for roadway corridors through the SHA adoption of a Complete Streets policy in FY 2013 requiring all projects to be evaluated with an eye on multimodal improvements and connections with transit, bicycle and pedestrian infrastructure.

Cycle Maryland

The Cycle Maryland initiative is an effort to encourage more Marylanders to ride for both recreation and transportation—to make bicycling a true transportation alternative. The MDOT Maryland Bikeways and Maryland Bikeshare Programs began in FY 2012, supporting the Cycle Maryland initiative. In 2014, Maryland moved up in rank to 7th (from 11th in 2013) on the League of American Bicyclists' Bicycle Friendly States.

Bikeways Program: In fall of 2014, as part of the Cycle Maryland initiative, MDOT announced more than \$2.3 million in Bikeways Program Grants to fund 23 projects in six counties and eight municipalities. These projects include on- and off-road bicycle route connections, bike route signage, bike parking racks and safety improvements. For example, grants in West Baltimore Neighborhood include bike boulevards connecting to Downtown (\$84,000) and Phase 1 construction of Governor Frank Brown Trail, Eldersburg to Sykesville connector (\$131,600).

The FY 2015–FY 2020 CTP dedicates nearly \$190 million for bicycle and pedestrian projects, including \$15.4 million for future Bikeways Program grant awards. The awards list can be found by following this link: http://www.mdot.maryland.gov/News/Releases2014/2014Sept05_FY15_Bikeways_Award_List.pdf

Bikeshare Program: Ongoing awards for Bikeshare are putting nearly \$1.5 million to work to study and implement bikesharing programs in Maryland. The funding supports implementation of bikesharing systems in Baltimore City, the City of College Park, 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.

For more information: www.cycle.maryland.gov

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







Mode Split for Maryland Commuters

Other

Bicycle

1.2%

0.1%

1.1%

0.2%

1.1%

0.3%

0.7%

0.2%

1.0%

0.3%

0.7%

0.4%

0.7%

0.2%

0.9%

0.3%

0.9%

0.4%

0.9%



Air Travel in Maryland

BWI Marshall continues to provide Maryland travelers, both international and domestic, with safe, convenient, first-class transportation services in an efficient "easy come, easy go" style. In 2014, BWI Marshall saw expansions in both domestic and international services, solidifying the airport's position as a vital economic engine and transportation resource for Maryland and the Baltimore/Washington D.C. region.

All Maryland airports are important to Maryland's economy, and provide an important service to the people and businesses of Maryland and the Mid-Atlantic region. In FY 2014, BWI Marshall supported traffic of more than 22.2 million passengers and 104,999 metric tons of cargo. Based on the most recent economic impact study (2010), 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.

Maryland is home to more than 36 public airports that provide exceptional air transportation services to the nation and the outside world. Through the state, the MAA has funded approximately \$42.2 million since 2002 (excluding federal funds and local airport funds) to continue to support our vibrant and critical aviation future. 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.

Total Annual Commercial Passengers at BWI Marshall Airport

2013 was the second busiest year in the history of BWI Marshall, with nearly 22.5 million passengers. It is estimated that CY 2014 will continue to see similar usage of the airport, with nearly 22 million passengers. Four new monthly records for passenger traffic were set and for the second straight year, international passenger traffic at the Airport grew about 20%. The number of passengers declined only slightly despite the federal government sequestration and the FY 2014 federal government shutdown, which halted the government and contractor flights, and reduced personal air travel in the region. MAA estimates that aviation activity in Maryland creates and supports more than 102,000 jobs while generating \$6.2 billion in business revenue and \$4.0 billion in personal income.

The number of international passengers using BWI Marshall continues to grow due to a combination of new carriers and expanded international service from Southwest Airlines as it finalized the integration of AirTran into its network. Southwest plans to add nonstop service from BWI Marshall to San Jose, Costa Rica in March 2015, and Los Cabos, Mexico in June 2015. For example, Southwest has expanded the number of weekly flights serving Aruba, Cancun, Montego Bay and Punta Cana. Construction of the new secure connector between Concourse D and Concourse E, creation of the new security checkpoint for domestic and international travelers, and configuration of airline gates has handled additional international growth at BWI Marshall.

ag**Southwest**



*2014 data is estimated and subject to change.

37

The Port of Baltimore's Contributions to Maryland

The Port of Baltimore is prepared to meet the demands of a global economy. One of two East Coast ports to have both a 50-foot-deep channel and 50-footdeep berth, the Port will be able to accommodate larger Post-Panamax cargo ships when the widened Panama Canal opens in 2016. Recent improvements to Port infrastructure are expected to bring \$1.8 billion in total investment and revenue for the State of Maryland over the life of the Port's agreement with terminal operator PortsAmerica Chesapeake.

Port initiatives to enhance security, including a remote-controlled submersible vehicle that secures the Port's public marine terminals and has the ability to detect Improvised Explosive Devices on ships, have received national recognition. Thanks to efforts by the Maryland's Congressional Delegation, the Port of Baltimore will be able to continue key dredging projects and environmental initiatives through the Water Resources Reform and Development Act. Along with supporting jobs, this legislation strengthens Maryland's ongoing environmental protection efforts by continuing to fund and expand our nationally-recognized program to rebuild long-eroded islands and create wetlands that serve as wildlife sanctuaries. After decades of erosion, Poplar Island has been restored to its original size of 1,100 acres using dredged material. Today, many different species of wildlife and waterfowl inhabit Poplar Island.

The Port of Baltimore's contributions to the economy of Maryland, the Mid-Atlantic, and nation, are significant. Approximately 40,040 jobs in Maryland are generated by Port activity, and of those, 14,630 are direct jobs, and 25,410 are induced and indirect jobs generated by Port activity. In total, over 108,000 jobs are 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 (data from a 2011 study, MPA conducts an economic benefit study every four years).

In 2014, the MPA received the Presidential "E Star" Award for excellence in export service due to a nearly 23% increase in general cargo exports in four years. Following U.S. Environmental Protection Agency (EPA) and U.S. Coast Guard approvals, Carnival Cruise Lines returned to the Port of Baltimore with new air emissions reduction technologies, ensuring that \$90 million in annual economic benefits and jobs remain in Maryland.

Performance Measures

MTP GOAL	2015 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	(SHA & MDTA)–Number of bridges and percent that are structurally deficient	20
Preservation	(SHA & MDTA)–Percent of roadway miles with accept- able ride quality	20
Quality of Service	(SHA)–Percentage of the Maryland SHA network in overall preferred maintenance condition	24
	(MPA)–Average truck turn-around time at Seagirt Marine Terminal	32
0 1	(MPA)-Intermodal Containers moved by rail through the Port	46
Community Vitality	(SHA & MDTA)–Percent of VMT in congested conditions on Freeways/Expressways/Arterials in Maryland during the evening peak hour	46
. .	Freight originating and terminating in Maryland	48
Economic Prosperity	(MPA)—Port of Baltimore foreign cargo and MPA general cargo tonnage	49



Improving the Movement of Goods: Maryland Freight Activity

Maryland's freight story continues to be one of economic growth, benefiting businesses and consumers in Maryland and throughout the United States and the world. Significant amounts of freight move to, from, and through Maryland every day. Emerging technology and bioscience industries in the Baltimore/Washington and I-270 corridors rely on time sensitive movement of valuable resources. The trend toward leaner supply chains and changes in online retail require efficient roadway networks, warehouses, and intermodal facilities to ensure timely and cost-effective delivery.

More than half of freight in Maryland in terms of tonnage is rock, sand and soil; consumer goods to and from warehouse and distribution facilities; and food products. Similar commodities, including primary metal, transportation equipment, lumber/wood, and chemicals, account for more than half the value of Maryland's freight movements. These goods and commodities underscore the central role that agriculture, construction and consumer spending play in Maryland's economy. MDOT continues to address impediments to the movement of goods and prepare for future population and economic growth that will place increasing demands on our freight system.

Key Freight Initiatives

- MDOT is undergoing a strategic planning effort for goods movement in Maryland. The plan outlines policy and program needs to ensure freight transportation is efficient and safe. The outcome will be data-driven policy guidance on preparing the freight transportation system for the expected increase in demand from a growing population and business community.
- MDOT is managing grant funding for two engineering and environmental studies to provide future improvements to capacity, trip time, and safety for commuter, freight, and intercity passenger rail services on Amtrak's Northeast Corridor. MDOT is coordinating with Amtrak and the Federal Railroad Administration on the BWI Rail Station Improvement and 4th Track Project, Susquehanna Bridge Project, and the B&P Tunnel Project to improve rail service, reliability, and address a longstanding bottleneck along Amtrak's busy Northeast Corridor for passenger and freight rail service.
- Trucks provide the final link between business and the freight network for goods traveling into, from, and within Maryland's borders. Alleviating congestion and providing safe operating conditions for trucks traveling on the freight corridors of Maryland benefits not only truckers, but all drivers as well. Truck congestion costs in freeways and expressways in the Baltimore-Washington Region decreased in CY 2013 to \$148 million from \$167 million in CY 2012.
- Maryland has a robust commercial vehicle enforcement and compliance program, ranking in the top 10 states nationwide for inspections. The inspections ensure 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 has over 188,000 issued commercial driver's licenses. In addition, Maryland is a member of the International Registration Plan (IRP) which has collected \$4.4 million in FY 2014. The IRP is a plan for apportioned registration based on mileage for commercial vehicles engaged in interstate operations in member states or Canadian provinces.

G@AL: Safety & Security

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

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

The safety and security of Maryland's multimodal transportation system is of critical importance to MDOT and to all users of the system. Federal, State and local partners have been implementing aggressive initiatives outlined in the 2011-2015 Strategic Highway Safety Plan (SHSP), such as the Toward Zero Deaths campaign, and the results are starting to show. In 2013, the number of traffic fatalities on Maryland roadways were the lowest in more than five decades, dropping to 466. Contributing to this decrease is SPIDRE (State Police Impaired Driving Effort), an elite team of State troopers that are focused on reducing the number of alcohol-related crashes. MDOT and its modal agencies have police forces to protect the safety and security of system users and goods.

The General Assembly has shown its support for safety, passing three critical pieces of legislation. A new seat belt law requires all seated positions in a vehicle to use a seat belt. It is now a primary offense to talk on handheld cell phones while driving, and the penalties for texting while driving increased. The direct benefits of the legislation are already being seen as more than 92% of drivers and front seat passengers in Maryland are wearing their seat belts, an increase from the 90.7% in 2013.

Maryland's road campaigns and rider skills trainings have reduced motorcycleinvolved traffic fatalities in Maryland to the lowest level in a decade, declining from 77 fatalities statewide in 2012 to 62 in 2013. Bicycle and pedestrian safety is a key component of Maryland's Twenty-Year Bicycle and Pedestrian Master Plan. Several transportation investments focused on safety are programmed in the FY 2015–FY 2020 CTP, and many are currently underway. One such project is on a 14-mile stretch of US 50 in Queen Anne's and Talbot counties, which includes resurfacing and nearly \$21.4 million in safety improvements. US 1 (Baltimore Avenue) in College Park is also receiving a series of safety improvements to enhance pedestrian safety around the University of Maryland.

Goods movement and the safety of travelers require a focus on security at the Port of Baltimore and BWI Marshall, and along Maryland highways and rail networks. For the sixth consecutive year, the Port of Baltimore has received an excellent security assessment from the United States Coast Guard review. The Port has taken steps to renovate facilities while also establishing more effective security risk mitigation strategies. BWI Marshall is employing its Runway Safety Areas (RSA) program to meet existing and new Federal Aviation Administration standards. In 2014, BWI Marshall and the Port of Baltimore were both selected as winners by Government Security News in the magazine's 2014 Airport/Seaport/Border Security Awards Program.



Key Initiatives

- **MDOT:** Implement the Maryland Twenty-Year Bicycle and Pedestrian Master Plan, which includes a goal to reduce bicycle and pedestrian fatalities in the state. The main objectives outlined in the Plan to achieve fatality reductions include improving education of the public and professionals regarding bicycle and pedestrian safety; analyzing bicycle and pedestrian crashes to identify effective countermeasures; and ensuring transportation facilities are maintained to provide users with safe access.
- MRR: Continue work at BWI Marshall on a comprehensive, multi-year series of airfield pavement reconstruction projects and Runway Safety Area (RSA) improvements. In the Summer/Fall of 2014, Runway 15R/33L was shut down for a complete rehabilitation.
- MPA: Support initiatives to enhance security, including a remote-controlled submersible vehicle that secures the Port's public marine terminals and also has the ability to detect Improvised Explosive Devices on ships. The Port of Baltimore was selected by Government Security News as the winner of the magazine's 2014 Seaport/Border Security Awards Program for "Most Notable Seaport Security Program" (Port Initiative).
- MTR: Transit system police force participated in several initiatives to increase awareness of system safety and security including events at Patapsco Light Rail and Rogers Avenue Baltimore Metro stations to celebrate the Annual National Night Out, a year-long campaign designed to heighten crime prevention awareness; and promotion of MTA's "Respect Your Ride" and "See Something...Say Something" campaigns.
- **MDTR:** Continue to implement a security plan at bridges and tunnels within the state to deter, detect and defend against any criminal and/or terrorist attacks. Use the approved funding for the initial design and right-of-way funding to replace the Governor Harry W. Nice Memorial Bridge (US 301). The new four-lane bridge will be wider, safer and more pedestrian-friendly, including a two-way bicycle/pedestrian path on the bridge.
- MVR: In partnership with the Anne Arundel County Police Department, launched "BikeSafe Maryland," an educational campaign encouraging driver and motorcycle riders to share the road, obey the speed limits, follow the rules of the road, and avoid distractions. MVA will also continue to operate the fully automated ignition interlock system, keeping drunk drivers off the road in Maryland. At the end of FY 2014, there are 11,290 participants in the ignition interlock program.

SHR: Continue to focus on pedestrian safety. Implemented safety improvements to enhance pedestrian safety along US 1 (Baltimore Avenue) in College Park. As part of the effort, the speed limit in part of the corridor was lowered, treatments were installed to help eliminate mid-block pedestrian crossings and a new pedestrian cross signal was installed at US 1 and Hartwick Road.

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

Maryland measures reductions in the actual numbers of traffic fatalities and injuries on all Maryland roadways, in six emphasis areas, as desired safety outcomes. Maryland joined other states and organizations in adopting the goal of the national initiative *Toward Zero Deaths: A National Strategy on Highway Safety*, to reduce traffic fatalities by half by 2030. Maryland supports the long-term goal of zero deaths and is committed to adopting strategies to achieve that purpose. Injury and fatality targets are from the 2011-2015 SHSP, which was amended in 2014 to reflect requirements in the most recent federal transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21). Attainment Report fatality and injury reporting is anticipated to be aligned with the revised SHSP and MAP-21 requirements in the coming year.

Annual Number of Traffic Fatalities on All Roads in Maryland



*2013 data is preliminary and subject to change.



Annual Number of Personal Injuries on All Roads in Maryland

Why Did Performance Change?

- In 2013 in Maryland, traffic fatalities fell to 466, the lowest level in the state in decades, and down 45 from 511 in 2012, representing a 9% decline. This number exceeded its 2015 goal of a reduction to 475 traffic fatalities, as outlined in the 2011-2015 SHSP
- Maryland's fatality rate declined, dropping from 0.91 in 2012 to 0.83 in 2013; Maryland's traffic fatality rate is similar to other states in the region and is below the national average
- A number of traffic safety program areas have resulted in a downward trend for certain causes in traffic fatalities, including aggressive driving, speed-related crashes and roadway departure crashes
- Although significant improvement has been made in the reduction of impaired driving, and motorcycle and pedestrian fatal crashes, these areas remain troubling and new strategies continue to be developed to reduce the incidence of these crashes
- Implemented pedestrian roadway safety audits (PRSA) to improve a data-driven approach to the selection and programming of pedestrian safety enhancement projects
- Maryland's observed seat belt use in 2014 was 92% percent, above the national average
- Maryland continues to implement best practice approaches to maintaining safe roadway infrastructure, including the installation of rumble strips to reduce roadway departure and head-on crashes

- Increase enforcement of alcohol and drug-impaired laws and enhance the prosecution and adjudication of alcohol and drug impaired driving cases
- Conduct public awareness initiatives including education and media programs to reduce alcohol and drug-impaired driving
- Support implementation of programs to reduce underage drinking and driving and integrate DUI data sources to ensure offender information is available to judges, prosecutors, probation and parole
- Evaluate the effectiveness of the Graduated Licensing Program and continue to provide the driving population with information on responsible driving practices for novice, aging and aggressive drivers to improve driver safety in conjunction with other programs through 2015
- Conduct education campaign on distracted driving prevention, evaluate and recommend legislation and or regulations that limit the use of electronic devices while driving and improve the reporting of distracted driving road incidents
- Continue Maryland's involvement in the regional aggressive driving initiative, such as the Smooth Operator, and develop and implement year-round, long-term public awareness and education campaigns identifying the dangers and consequences of aggressive driving behavior; also develop and implement a statewide aggressive driving enforcement strategy
- Increase the awareness of child passenger safety best practice recommendations for infants, children and pre-drivers (up to age 16)
- Identify high crash locations (such as intersections) and identify system wide improvements to reduce the number and severity of infrastructure-related crashes, e.g., run-off-the-road, sight distance issues, etc.



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

Maryland measures reductions in the actual numbers of traffic fatalities and injuries on all Maryland roadways, in six emphasis areas, as desired safety outcomes. Maryland joined other states and organizations in adopting the goal of the national initiative Toward Zero Deaths: A National Strategy on Highway Safety, to reduce traffic fatalities by half by 2030. Maryland supports the long-term goal of zero deaths and is committed to adopting strategies to achieve that purpose. Injury and fatality targets are from the 2011-2015 SHSP such as the Toward Zero Deaths campaign, which was amended in 2014 to reflect requirements in the most recent federal transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21). Attainment Report fatality and injury reporting is anticipated to be aligned with the revised SHSP and MAP-21 requirements in the coming year. MDOT and its modal agencies have police forces to protect the safety and security of system users and goods.

Number of Bicycle Fatalities and Injuries on All Maryland Roads



*2013 data is preliminary and subject to change.

Number of Pedestrian Fatalities and Injuries on All Maryland Roads



all roads in Maryland

Why Did Performance Change?

- Issued a bicycle policy which requires all projects to evaluate the inclusion of improvements for bicyclists, such as the marking of bicycle lanes or shared use lanes, and to install these improvements where feasible within the projects' scope
- Continue to work with the SHA bicycle committee to improve bicycle guidance and policies that pertain to SHA roadways
- Ocean City (OC) Walk Smart! Partners expanded the Walk Smart effort in Ocean City and along Delaware's beaches; last year's campaign saw a 50% decrease in pedestrian-related crashes and no pedestrian fatalities along Coastal Highway
- Adopted an official Complete Streets policy for all SHA projects and established an official pedestrian safety committee/task force within SHA to develop a strategic approach to improve pedestrian safety around the state
- Identified high-crash locations across the state to focus additional engineering, enforcement and education efforts to improve pedestrian safety
- Performed pedestrian safety audits in four high-crash locations in Ocean City, Montgomery, Prince George's and Baltimore counties
- Implemented innovative engineering techniques to improve pedestrian safety in Ocean City and in various locations in Montgomery, Prince George's and Baltimore counties
- Began formulating pedestrian safety action plans in coordination with local government and community leaders in high-crash locations that have had audits previously performed

- Utilize social media to establish a more progressive form of communication between the bicycling community and SHA
- · Conduct a pedestrian roadway safety audit on the next round of top eight high-pedestrian crash locations and work to fund the resulting recommendations from each audit
- · Seek ways to coordinate education and enforcement efforts with engineering efforts to more effectively improve pedestrian and vehicular behaviors in high-crash locations
- Investigate innovative funding strategies and management and tracking practices for the implementation of pedestrian safety related projects

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.



* A survey was not completed in 2009 or 2013. The last survey was completed in 2012. A survey was conducted in fall of 2014, results will be available in January 2015, and will therefore be published in the next Attainment Report. Data shown for 2014 are estimates only, based on past survey performance.

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	2008	2009	2010	2011	2012	2013	2014**	Target
Preventable accidents per 100,000 vehicle miles								
Local Bus	2.65	2.41	3.49	2.61	2.43	1.49	1.42	1.4
Light Rail		0.03	0.13	0.13	0.24	0.03	0.06	0.05
Baltimore Metro		0.00	0.11	0.10	0.06	0.00	0.00	0.05
Paratransit/Taxi Access		1.14	0.34	0.48	1.74	1.55	1.10	1.0

* Data revised from previous Attainment Report.

**2014 data is preliminary and subject to change.



Why Did Performance Change?

 A survey was not completed in 2009 or 2013. The last survey was completed in 2012. A survey was conducted in fall of 2014, results will be available in January 2015, and will therefore be published in the next Attainment Report. Data shown for 2014 are estimates only, based on past survey performance

What Are Future Performance Strategies?

- Enhance MTA's capabilities to protect critical infrastructure, provide law enforcement with resources to increase their physical presence, train employees and transit riders to be aware of security-related issues, and develop and enhance processes, standards, voice and video communication systems and cooperative agreements with local partners (\$21.0 million in the FY 2015–FY 2020 CTP for Homeland Security)
- Invest in security features at stations and facilities (\$1.6 million in the FY 2015–FY 2020 CTP for Closed Circuit Television (CCTV) Improvements)



Why Did Performance Change?

- Implemented the Safety Performance Evaluation System (SPES) placing an emphasis on accidents and safety among our core services
- Initiated a pilot program called the Safety Rules Compliance Program (SRCP) which will assist managers with an overall safety evaluation of their system; provide data on safety hot spots and assist managers in evaluating operator and mechanic safety performance

- Continue to provide training to our operators on the safe and proper manner to drive revenue vehicles
- Continue to invest in infrastructure for better reliability and safety (\$256.3 million in the FY 2015– FY 2020 CTP for Baltimore Metro Signal System Preservation and Replacement)
- Provide a safeguard against train collisions (\$9.5 million in the FY 2015–FY 2020 CTP for MARC Positive Train Control)

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

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



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.



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 made 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 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
- Continue Runway Safety Area (RSA) improvements to enhance safety by reducing the risk of aircraft damage and personal injury in the event of runway overruns (\$18.4 million in the FY 2015–FY 2020 CTP for RSA, Standards and Pavement Improvements Phase 2 and \$75.6 million for Phase 3 and \$104.8 million for Phase 4, at BWI Marshall)



Why Did Performance Change?

- BWI Marshall's 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 Systems (CASS) to monitor, record and respond to security and safety incidents

What Are Future Performance Strategies?

 Continue to utilize CCTV to monitor, record and respond to security and life safety incidents

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 2014 FAA safety and certification inspection with zero repeat discrepancies. MAA will continue to address all discrepancies in accordance with the federally prescribed timeline.

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

The MPA incorporates a personnel and physical security plan, which meets those security requirements as outlined within the Maritime Transportation Security Act of 2002 (MTSA). The MPA's security procedures are documented within its Facility Security Plan, which is approved by the U.S. Coast Guard. For the past six years the MPA has received "Excellent" ratings following the U.S. Coast Guard's annual security inspection.

The MPA is required to maintain and execute a Facility Security Assessment and Facility Security Plan. The Facility Security Plan for all MPA terminals currently meets the MTSA 2002 requirements and has been approved by the U.S. Coast Guard.

MPA continues to assess its security plans and make adjustments or additions to maintain the delicate balance between security requirements and enhanced commerce capabilities. For example, MPA completed enhancement of physical security measures at the South Locust Marine Terminal. The Port of Baltimore was selected by Government Security News as the winner of the magazine's 2014 Seaport / Border Security Awards Program for "Most Notable Seaport Security Program" (Port Initiative).

MVA: Percent of Homeland Security REAL ID Act Benchmarks Achieved

The federal REAL Identity Act (REAL ID) 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. In 2008 MDOT was directed 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, Maryland 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, Maryland 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?

- Work closely with FAA to ensure that BWI Marshall passes its annual FAR 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

What Are Future Performance Strategies?

- Installation and/or enhancement of the CCTV system and engage in the statewide CCTV Interoperability System
- Introduce Fixed Transportation Worker Identification Credential (TWIC) Readers at terminal access points
- Participate in maritime and homeland security initiatives with federal, State and local Port partners (\$2.3 million in FY 2015–FY 2020 CTP for Terminal Security Program)
- Coordinate joint enforcement initiatives with federal, State and local law enforcement partners

- 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
- With the passage of the 2013 Maryland Highway Safety Act (SB715) legislation, in January 2014 the MVA began 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
- Develop a more secure driver license and ID card and a means to archive identity documents (\$1.5 million in FY 2015– FY 2020 CTP for REAL ID Act)

G[©]AL: System Preservation

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

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

MDOT and its modal agencies place high priority on the preservation of the statewide multimodal transportation system. The FY 2015–FY 2020 CTP reflects significant investments in the bridge program, road and runway resurfacing, rail car overhauls and replacements, bus replacements, general facility rehabilitation, replacement and upkeep. In FY 2014 alone, MDOT and its modal agencies completed 18 major preservation projects, as well as the rehabilitation and resurfacing of 37 highway segments, the rehabilitation or replacement of 14 bridges, and 123 other rehabilitation projects for various aviation, railroad, port, transit, motor vehicles, or other facilities statewide. Several of the modal agencies continue to use asset management plans to carefully identify and prioritize their preservation and maintenance expenses.

Bridges are the connectors between our communities, economic centers and transportation hubs. Bridge condition and preservation are key to keeping Maryland's transportation system running safely and efficiently. Each year, SHA has continued to make significant progress in reducing the number of bridges defined as "structurally deficient," meaning they are safe for travel, but need to be programmed for repairs or replacement. Since 2007, SHA has repaired or rehabilitated 152 State-owned bridges that had been classified as structurally deficient. By April 2014, SHA reduced the total number of State-owned structurally deficient bridges to 81 (out of 2,570 bridges statewide), the lowest in nearly a generation. MDTA also has an active bridge maintenance program, and has only one structurally deficient bridge at the close of FY 2014 (a combined total of 82 structurally deficient bridges).

In addition to roadway preservation, Maryland strongly supports improving state of good repair and preservation of the State's transit system, airports and ports. The FY 2015–FY 2020 CTP includes a total of \$303 million (roughly \$50 million each year through 2020) for the Maryland share of Washington Metropolitan Area Transit Administration (WMATA) state of good repair and preservation program. In addition to scheduled system preservation projects, the modal agencies have programmed funds in the FY 2015–FY 2020 CTP for minor preservation projects, with MDOT programming \$131.6 million, MVA \$102.1 million, MAA \$224.9 million, MPA \$227.6 million, MTA \$285.0 million and SHA \$4.7 billion. MDOT and its modal agencies remain committed to working together to preserve and maintain the investments already made in the State's transportation system, so it will provide safe, efficient and enjoyable transportation options for Maryland residents for generations to come.



Key Initiatives

MDOT: Continue to fund system preservation needs in the FY 2015– FY 2020 CTP at \$5.6 billion through FY 2020.

- MAR: Invest in runway, terminal and passenger facility maintenance at BWI Marshall and other airports around the state. MAA is currently in the midst of a multi-year series of airfield pavement reconstruction projects and Runway Safety Area (RSA) improvements, focusing on Runway 15R-33L, one of BWI Marshall's primary commercial runways.
- **MPR:** Continue to renovate port facilities at Dundalk Berth 4, manage an effective dredging program to maintain and improve shipping channels to the Port, and work towards acquiring additional property at Coke Point for another Dredged Material Containment Facility (DMCF).
- **MDTA:** Support preservation of all MDTA facilities and expand the current system preservation program to include preventative maintenance activities, for example, the resurfacing of the I-95 John Kennedy Memorial Highway, estimated at \$19.2 million. Other critical highway links slated for preservation efforts include the Hatem Bridge, the Bay Bridge rewrapping and dehumidification project, the Baltimore Harbor Tunnel, Kennedy Highway and Fort McHenry Tunnel.
- MTR: Continue to invest in the maintenance and preservation of all MTA facilities, transit vehicles, including annual bus procurement to replace vehicles in service for 12 or more years and overhaul of Light Rail vehicles to prolong the rail car service life and improve safe operations. Continue to enhance passenger comfort and convenience through overhauls for Baltimore Metro vehicle systems and subsystems.
- **MVR:** Support the preservation and improved operations of the agency through investment in information technology. MVA continues to minimize customer wait times through Alternative Service Delivery (ASD) methods including U.S. mail, kiosk, interactive voice response system and the Internet.
- **SHR:** Continue investing in maintenance of structurally deficient bridges throughout the state, simultaneously increasing the use of more durable roadway materials and recycled materials. Among the projects currently under construction are the I-695 Baltimore Beltway Inner Loop bridge over Benson Avenue and the I-695 Baltimore Beltway Inner Loop bridge over US 1, Leeds Avenue and Amtrak, the MD 331 Dover Road bridge over the Choptank River, the MD 272 bridge over Amtrak, the US 13 bridge over Pocomoke River, the MD 261 bridge over Fishing Creek and the MD 129 bridge over I-695.

SHA & MDTA: Percent of Roadway Miles with Why Did Performance Change? 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 miles, which is a component of this measure, now includes routes of less than one mile in length so that the SHA network is more accurately and completely represented.

**2014 data is preliminary and subject to change.

SHA & MDTA: Number of Bridges & 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	2008	2009	2010	2011	2012	2013	2014
Number deficient	133	117	111	110	101	88	82
Percent deficient	4.7%	4.1%	3.9%	3.9%	3.5%	3.0%	2.8%

TARGET: Less than 101 total bridges by 2015



- 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
- 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
- Overhauled and enhanced the MDTA inspection program over the past several years to better identify, report and address inspection findings
- Improvements include comprehensive Facility Inspection Program Strategic Plan, implementation of additional performance indicators such as cracking, rutting and friction to measure the condition of the highway network, and completion of a comprehensive maintenance and rehabilitation plan specific to MDTA

What Are Future Performance Strategies?

- Increase the use of more durable materials in high demand SHA roadways and 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 (FHWA) and SHA Pavement Preservation Program that will strategically utilize system preservation activities
- Target low surface friction locations on SHA roadways
- MDTA will expand the current system preservation program to include preventative maintenance activities, which will prolong the life of the existing infrastructure and provide best value for money (\$19.7 million in the FY 2015-FY 2020 CTP for I-95 John F. Kennedy Memorial Highway-Resurfacing)
- Develop standardized MDTA design and repair details and written documentation of procedures
- Continue to fund and schedule completion of high-priority MDTA system preservation projects

Why Did Performance Change?

- Continued an aggressive bridge rehabilitation program, which keeps numerous construction crews working full time year-round
- Efficiently utilized all funding received; addressed bridges that were deficient • and minimized the number of bridges that may become deficient and created plans to replace deficient structures that cannot be corrected by remedial work
- MDTA conducts yearly inspections and defect repairs, and assigns defects a rating based on severity
- MDTA has implemented an aggressive System Preservation program to support identification of projects in various stages of engineering, contract procurement and construction
- MDTA has developed and implemented a comprehensive Facility Inspection Program Strategic Plan, an integrated facility management software and completed a comprehensive inspection manual specific to MDTA (\$97.3 million in the FY 2015-FY 2020 CTP for I-95/I-395 Fort McHenry Tunnel rehab and repair)

- Perform immediate structural evaluations on water crossings after local • storm events
- Prioritize projects to reduce the number of weight postings and the number of bridges with existing weight restrictions that must have their weight restriction lowered further
- Complete the I-95 improvements which include the currently opened Express Toll Lanes in Baltimore City and Baltimore County
- Continue to fund, design and perform high priority structural repairs based on annual inspection report findings; evaluate and monitor those bridges with at least one main element rated a five
- Expand the current system preservation program to include preventative maintenance activities to prolong the life of the existing infrastructure

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

MPA is responsible for obtaining dredged material placement sites.



Why Did Performance Change?

- Passage of the Water Resources Reform and Development Act of 2014 authorized cost increases for Poplar Island and its Expansion and authorized the Mid-Chesapeake Bay Islands project for construction (90 million cubic yards (mcy) capacity). Expansion of Poplar Island (28 mcy capacity) is expected to begin in FY 2016
- Initiated a feasibility study of expanding the Cox Creek DMCF onto adjacent MPA property (12.5 mcy capacity) and began exploring acquisition of the adjacent Cristal USA property for additional expansion
- MPA revamped its strategy for innovative and beneficial use of dredged material with stakeholder input
- MPA has made significant progress planning and designing a water system for neighborhoods affected by previous use of the DMCF—both necessary to reopen the site for dredged material placement (25 mcy capacity)
- The State's Dredged Material Management Program (DMMP) continued to support the Corps' DMMP studies, by providing expert technical and citizen's committee guidance, review and evaluation
- Currently only maintenance dredging of Harbor channels can be accommodated without overloading existing placement sites
- Safety and mobility efforts to ensure unimpeded shipping access to the Port have been effective; the Port of Baltimore compares extremely well as only one other U. S. East Coast ports have a channel depth of 50 feet

- 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; and ensure that the program is cost-effective, environmentally sensitive and community-supported (\$530.3 million in the FY 2015–FY 2020 CTP for Harbor Development)
- 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 property at Coke Point to construct another DMCF
- Continue to pursue expansion of the Cox Creek DMCF onto adjoining MPA owned and Cristal USA properties. The Cristal property can be acquired short-term as it is currently for sale
- Conduct pilot test of Confined Aquatic Disposal at Masonville in 2015
- Develop a regulatory framework for innovative and beneficial use projects and within two to five years; implement several small to medium projects
- Work with all levels of the Corps of Engineers, the Office of Management and Budget and the Maryland Congressional delegation to ensure availability of Corps of Engineers construction funding for expansion of Poplar Island in federal FY (FFY) 2016 and 2017 in order to begin inflow of dredged material in FFY 2019
- Receive regulatory approval to start Pearce Creek operations in early 2015 and initiate construction of the community water system to be completed no later than FY 2018
- Continue with strategic communication for the dredged material placement process, and public communication of actions leading to prioritization and ultimate recommendation for funding and construction of placement sites and options

Goal: System Preservation

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.



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

* 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.

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
- Acquired 50 new hybrid diesel-electric buses
- MARC received 54 new bi-level cars from Bombardier

- 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 (\$67.7 million in the FY 2015–FY 2020 CTP for MARC Locomotives, and \$114.1 million for MARC Coaches' Overhauls and Replacements)
- Continue with ongoing mid-life inspection and renovation of Light Rail fleet to ensure vehicle reliability and useful life (\$157.4 million in the FY 2015–FY 2020 CTP for Light Rail Vehicle Overhaul)
- Enhance passenger comfort and conveniences, ensure better reliability, reduce system failures and offer improved safety through overhauls for Baltimore Metro vehicle subsystems (\$218.2 million in the FY 2015–FY 2020 CTP for Baltimore Metro Railcar Overhauls and Replacement)
- Procure replacement vehicles and equipment repair for Baltimore Metro Rail and Mobility Paratransit for service expansion and vehicle replacement
- Maintain the average age of the bus fleet (\$196.2 million in the FY 2015–FY 2020 CTP for Bus Procurement)



G@AL: Quality of Service

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

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 traveling public

Marylanders look for quality in Maryland's transportation system and services – this means the system and services must be well connected, reliable, comfortable and convenient. Excellent customer service is also important to Marylanders interacting with the technology and employees that support transportation services, such as MVA licensing and registration, MTA transit operators and the responders of the SHA Coordinated Highways Action Response Team (CHART).

Programs and projects selected for inclusion in the FY 2015–FY 2020 CTP are considered for their effectiveness in enhancing the condition and operation of the transportation system. To help prioritize where to make investments to improve transit services, MTA updated the Transit Modernization Program and launched the first phase of the Bus Network Improvement Program (BNIP). These programs examined Maryland's transit services, including Local Bus, Light Rail, Baltimore Metro Subway, MARC Train and Commuter Bus, and made recommendations to improve the overall quality and connectivity of transit services. MDOT also outlined efforts to enhance travel options for cyclists and pedestrians, both on-road and off-road, through updating the Maryland Twenty-Year Bicycle and Pedestrian Master Plan.

Roadway construction and maintenance are key components of travel reliability and customer satisfaction. More than \$800 million in roadway projects and services were underway in 2014, including roadway widening, interchange improvements, bridge replacements, new construction, access improvements and others. All of these investments are helping to connect more people to job opportunities, reduce congestion, move goods and support Maryland's growing economy.

Excellent customer service at MDOT's modal agencies continues to be critical to quality of service. The MVA offers an ever-increasing number of online services to reduce in-person visits and wait times at branch offices and MAA has launched a bicycle sharing service, a new and unique amenity available to travelers and customers at BWI Marshall.





Key Initiatives

- **MDOT:** Dedicated more than \$30 million for roadway improvements to reduce traffic and enhance the operation of the transportation system around Fort Meade to accommodate the continued growth at Fort Meade as a result of the Base Realignment and Closure (BRAC) program.
- MRR: To meet needs of additional international service at BWI Marshall, MAA is constructing a secure connector between Concourse D and Concourse E, creating a new security checkpoint to serve domestic and international travelers, and configuring airline gates to support additional international flights.
- **MPR:** Won the President's "E Star" Award for the third time, which recognized MPA for having a marked increase in exports over the past few years through the Port of Baltimore's public marine terminals. The Port will continue to invest in technology to reduce waiting times, improve processing efficiency, and maintain security for trucks.
- MTR: Launched first phase of the BNIP, to identify and recommend improvements to Local Bus, quick bus and express bus services. One of the primary goals of BNIP is to improve service quality by reducing overcrowding, improving on time performance and travel speed, and decreasing passenger trip times.
- MDTA: Opened the new \$26 million Chesapeake House Travel Plaza six weeks ahead of schedule to better serve the growing number of travelers along 1-95 in Cecil County. The one stop shop includes fuel, food concessions, modern restroom facilities and equipment, a convenience store, free Wi-Fi, additional bus parking, a welcome center, and a kids' corner.
- **MVR:** Expanded a number of online services to enhance customer service and limit the inconvenience of in-person trips to branch offices. Online services now enable customers to complete driver's license and identification card renewal, request duplicate driver's licenses, complete a change of request or license correction and access a number of other services.
- **SHR:** Continue to enhance traveler information services through the Maryland 511 traveler information service (which as of January 2014 provides information regarding emergency truck parking locations during winter storms), the CHART website and the annual e-Road Ready brochure. The brochure tells motorists where work zones are throughout the state to help them avoid congestion and delays.

Goal: Quality of Service

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	2014
Rating	3.93	3.90	3.94	3.92	3.92

TARGET: 4 out of 5

* Survey administered biennially. The biennial survey was conducted beginning in summer of 2014; results will be published in the next Attainment Report. Data shown for 2014 are estimates only, based on past survey experience.

Why Did Performance Change?

- CHART 511 updated the system to better serve mobile device users and added significant commercial driver services provided by 511, including emergency parking locations during winter storms
- Identified and prioritized necessary enhancements and fixes for Customer Care Management System (CCMS) to improve ease of use for expeditious resolution for customer concerns
- Development of CCMS Survey Dashboards to incorporate data use in business process and customer service enhancement
- Continued and increased interaction through social media to engage drivers and direct them to CCMS to address issues and concerns



What Are Future Performance Strategies?

- Dashboards for CCMS survey will be sent to upper management and will be used for offices to view opportunities for improvement based on results
- CHART emergency patrols sponsored by State Farm[®], began 24/7 service in the metro areas in July 2014
- Conduct biennial driver survey and share results with business units for action plans
- Update CCMS internal training to an interactive e-training to more efficiently reach employees who handle customer inquiries; training would be mandatory for most SHA employees
- CHART to add approximately 75 cameras to monitor traffic in next two years

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?

- Despite an additional \$0.5 million in operating funds spent over the prior FY, and the supplemental funding from Federal Highway Administration (FHWA), the level of service for line-striping dropped to a five-year low; this can be attributed to the extreme winter and the effects of the snow plowing operation
- The extended winter season did not afford as much opportunity for typical springtime maintenance activities in FY 2014; this resulted in the level of service on ditches, culverts and inlets dropping to a five-year low
- Progress has been made toward improving the level of service for drop-off/build-up on the shoulder and brush and tree maintenance; an additional 250 linear miles of roadside was addressed for drop-off or build-up and attention was given to signs obstructed by tree limbs
- After several years of budget reductions, total maintenance expenditures have been closer to the average historical amounts for the past three years, after the prior two consecutive years of expenditures were approximately \$6-7 million below average

- Continue to maintain the statewide overall level of service while working on the specific areas of individual assets that fall below the desired maintenance condition
- 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 Automatic Vehicle Location (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 96% OTP while experiencing several challenges, including several service interruption from severe storms and major construction projects
- Baltimore Metro experienced delays due to necessary track and system maintenance
- Mobility has transitioned to three service providers, allowing for better scheduling and responsiveness
- Heavy rains/flooding and winter storms affected OTP throughout FY 2014
- MARC was able to maintain a 92% OTP despite the severe winter weather and the Charles Village street collapse, affecting commuter rail and freight rail services in the Mid-Atlantic Region

What Are Future Performance Strategies?

- MTA is currently in the Request for Proposals (RFP) process for a system upgrade. 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 (\$196.2 million for Bus Procurement in the FY 2015–FY 2020 CTP)
- Address absenteeism 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 interlocking and passenger amenities on the MARC Camden, Brunswick and Penn lines
- MTA is overhauling its Light Rail cars to improve fleet reliability and service efficiency
- Complete Computer-Aided Dispatch (CAD) and AVL project that will provide radio data channel expansion to improve bus fleet's voice and data communication (\$1.5 million for this project in the FY 2015–FY 2020 CTP)

Naryland Department of Transportation 129C

MTA: Operating Cost Per Passenger Trip

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



TARGET: Cost per passenger 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 FY 2010 to FY 2011.

*** The cost data are adjusted for inflation.

Why Did Performance Change?

- MTA system costs increased slightly while maintaining high levels of service quality despite rising fuel costs, contract increases and labor agreements
- Baltimore Metro and Local Bus continues to be MTA's most efficient way to move passengers, with cost growth in line or below historical trends
- 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 on MARC and better contractual management on both services have minimized cost growth, which stayed below historical levels

- 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 BNIP



MTA: Operating Cost Per Revenue Vehicle Mile



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.



Why Did Performance Change?

- Average cost per mile (for all modes) increased by 14.7% from FY 2013 to FY 2014 (about \$1.60)
- 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 Baltimore 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



OPERATING COST PER REVENUE VEHICLE MILES (2014 Dollars)**

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.



* A survey was not completed in 2009 or 2013. The last survey was completed in 2012. A survey was conducted in fall of 2014, results will be available in January 2015, and will therefore be published in the next Attainment Report. Data shown for 2014 are estimates only, based on past survey performance.

Why Did Performance Change?

- The last survey was completed in 2012, in FY 2013 a survey was not completed, a survey was conducted in fall of 2014, results will be available in January 2015, and will therefore be published in the next Attainment Report
- MTA continues programs to delivery high quality service to its customers

- 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 BNIP (included in the TMP), a 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 (e.g., 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 (e.g., 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 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).



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?

- Minimized customer wait times through Alternative Service Delivery (ASD) methods including U.S. mail, kiosk, interactive voice response system and the Internet, concurrently with an increase 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, customer awareness campaigns, and friendly branch team competitions, combined with process and technical enhancements, have provided for increased customer satisfaction levels
- The MVA strives to continuously provide excellent customer service. During FY 2012, increased efforts were placed on branch office operations to enhance the customer experience from arrival through product delivery

What Are Future Performance Strategies?

- Automate and standardize the collection of detailed customer satisfaction information for a consistent approach toward collecting and analyzing survey information from all available methods such as branch operations, kiosk, Internet, Customer Call Center and Vehicle Emissions Inspection Program (VEIP)
- Maintain a standard for Customer Agent performance, develop enhanced training programs and provide training to Customer Service Representatives and Driver License Examiners to continuously provide timely, consistent and effective service
- To have a positive effect on customer satisfaction, the MVA will continue to implement policies, technologies and strategies contained in the MVA ASD Plan to reduce the average branch office and VEIP customer visit time

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 39.0% in FY 2013 to 40.2% in FY 2014
- By providing additional service and product availability through alternative means, customer ASD usage increased, thus ultimately reducing walk-in branch transactions
- Continued to provide 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
- Continued 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

- The MVA will continue to refine and implement the initiatives outlined in its comprehensive ASD Plan to progressively add MVA services over the Internet through FY 2014 (\$9.9 million in the FY 2015–FY 2020 CTP for ASD)
- Starting in 2012, the MVA began providing 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; thus increasing future ASD usage
- In FY 2012, the MVA began the process of redesigning its website in order to improve the way it serves its customers. The new website design will provide a consistent look and feel for all MVA web properties, will support various customer types and technical sophistication, and incorporate web and mobile best practices so that information and/or web services are available

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.



** The historical cost per transaction data are adjusted for inflation.

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?

- 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 2014 than the previous FY, and lower than its target, while total transactions processed increased by over 500,000
- 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



Why Did Performance Change?

- Access to MVA system data is critical to support law enforcement and public safety agencies. In addition, access to MVA system data is essential to support programs such as Child Support Enforcement, Arrest Warrants, Tax compliance, Courts Point System, Board of Elections, Organ Donor and Chesapeake Bay and Agriculture programs
- In FY 2014, the percent of system availability remained relatively the same when compared to 99.8% in FY 2013 and still remains above the target measure of 95%
- The MVA maintains records on almost every person in Maryland over the age of 16 years old. The MVA touches the lives of every motorist in Maryland, whether through the issuance of driver's licenses or identification 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

- Continue to provide data for Law Enforcement, Child Support Enforcement, Arrest Warrants, Courts Point System, Tax Compliance, Board of Elections, Organ Donor, and Chesapeake Bay and Agriculture Programs
- Employ the latest technological system conventions and security requirements and techniques, to ensure full-time system access with minimal business disruptions (\$4.4 million in the FY 2015–FY 2020 CTP for Project Core, Enterprise Management System)

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**

* The comparable airports CPE mean amount for 2014 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.

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



^{*} Surveys not administered in 2007 and 2010.

** The 2009 rating only reflects first quarter 2009 data, not the full fiscal year.

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
- Sequestration impacted the number of enplanements
- As expenses stay at a similar level, if enplanements do not keep pace, CPE is driven up
- BWI has a new use and lease agreement, BWI Marshall re-allocated some of the costs increasing terminal rents
- Increased costs were incurred for snow removal due to higher than average snowfall and ice accumulation

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
- Concourse D/E Connector will bring on additional concessions that will increase the revenue per enplaned passenger (\$118.7 million in FY 2015–FY 2020 CTP for D/E Connector at BWI Marshall)

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
- Added charging capacity for travelers, three new charging stations on Concourse D offer 184 new outlets and USB ports for passengers to charge their cell phones, laptops, tablets and other personal electronics

- 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 to inform 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 (\$118.7 million in FY 2015–FY 2020 CTP for D/E Connector at BWI Marshall)


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.



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: 80% or higher

* 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.

Why Did Performance Change?

- Transportation Worker Identification Credential (TWIC) program balances security and commerce
- Continued the Quality Cargo Handling Team (Q-CHAT) to further improve containerized cargo handling
- Conducted cost/benefit based evaluation and possible implementation of additional process enhancing technologies to further improve gate and terminal performance
- Evaluated business processes to ensure gate and terminal processes are not adversely impacted by existing and proposed commercial improvements

What Are Future Performance Strategies?

- Continue the 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

Why Did Performance Change?

- The results from the survey conducted in FY 2013 showed a favorable response toward MDTA facilities and services
- Every survey question received a majority response of "satisfied" or "completely satisfied"

What Are Future Performance Strategies?

- Continue to distribute satisfaction surveys as fiscal and staffing constraints allow
- Install a video system in all *E-ZPass*[®] Stop-in Centers to provide *E-ZPass*[®] and facility specific news and updates
- Continue to respond to customer suggestions for improvements, as fiscally possible
- Redesign *E-ZPass*[®] website for ease of use for customers
- Develop innovative ways to market *E-ZPass®* and all-electronic toll roads
- Provide Public Information Act (PIA) training to improve internal customer performance and external customer service regarding PIA responsiveness

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?

- *E-ZPass*[®] transactions increased minimally in overall volume but substantially in regards the percentage of total transactions
- The number of *E-ZPass*[®] accounts increased significantly in FY 2014 due to an 18% increase in traffic on the ICC/MD 200 and a public outreach campaign to encourage use of *E-ZPass*[®]
- Toll increases had a strong impact on the MDTA minimal volume increase

What Are Future Performance Strategies?

- Full implementation of the citation system through the MVA and Central Collection Unit (CCU) should encourage the use of *E-ZPass*[®] transponders
- Studies should be completed to facilitate the movement to All Electronic Tolls (AET) for Francis Scott Key and the Thomas J. Hatem bridges
- Construct two Express Toll Lanes (ETL) in each direction from I-895 North to north of MD 43 and improve the I-895, I-695 and MD 43 interchanges (\$138.9 million in the FY 2015–FY 2020 CTP for I-95 John F. Kennedy Memorial Highway ETL)

* 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.

G@AL: Environmental Stewardship

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

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

Transportation infrastructure is a significant portion of Maryland's built environment and, as such, plays a critical role in sustaining the quality of our natural resources. Utilizing the State's *Smart, Green, & Growing* Initiative as a guide, MDOT and its modal agencies use project mitigation to support broader conservation goals and employ a number of best management practices to minimize adverse environmental impacts to the land, air and water. This approach will play an increasing role in ensuring a transportation system resilient to the potential impacts of climate change while creating opportunities to consider adaptive management strategies for protecting the State's natural resources in a changing climate. By coordinating land-use, transportation and resource planning with partners in other agencies and local governments, MDOT helps to ensure that the investments made will meet Maryland's environmental quality goals.

A current example of multi-agency coordinated environmental planning is the Maryland Scenic Byways Program Advisory Committee. The committee, along with its six agency partners and 11 byway sponsoring organizations, published a strategic plan to integrate Maryland's Scenic Byways more directly to the surrounding landscape. The Plan guides and supports sustaining the system of scenic byways as an integral part of Maryland's transportation network. As a practical resource for local agencies and advocates, the Maryland Department of Planning (MDP) and SHA developed the Scenic Byways Resource Protection Application, a Geographic Information Systems (GIS)-based mapping tool to inventory protected, vulnerable and threatened resources along Maryland's Scenic Byways. Local and State agencies use the tool to prioritize preservation and conservation actions in a targeted and strategic manner.

The FY 2015–FY 2020 CTP includes more than \$730 million in projects to improve air and water quality, which includes projects that support the U.S. Environmental Protection Agency (EPA) Total Maximum Daily Loads (TMDLs) to lower nutrients and sediment from entering the Chesapeake Bay and its tributaries. This includes \$598.9 million to plan, design and construct stormwater controls and alternative water quality improvement strategies adjacent to Maryland roadways to help meet the TMDL requirements. All MDOT modal agencies continue to implement initiatives to reduce transportation emissions, and promote and utilize efficient and alternative energy sources.



Key Initiatives

MDOT: MDOT addresses climate change through incentive programs and technology investment to reduce vehicle emissions and manage transportation energy consumption. MDOT chairs the Maryland Electric Vehicle Infrastructure Council (EVIC), which spearheads Maryland's effort to promote the adoption of electric vehicles (EVs) through outreach, infrastructure planning and legislation.

MDOT funds multiple Travel Demand Management (TDM) strategies in the Baltimore and Washington regions to support commute alternatives to driving alone and limit emissions from the transportation sector. TDM efforts help reduce congestion, lower commuting costs and improve air quality. Some of these efforts include expanding park-and-ride lots, guaranteed ride home, transit passes, teleworking and variable pricing infrastructure.

- **MRR:** 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 identifying alternative energy sources. MAA recycles at least 20% of solid waste at BWI Marshall, 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.
- **MTA:** MTA is going beyond its environmental policy commitments by actively engaging in ongoing sustainability initiatives in energy conservation, materials and waste management, fuel management and alternative fuels, stormwater management, and award winning green infrastructure projects.

MTA offers 18 total EV charging stations at White Marsh Parkand-Ride, BWI Marshall MARC Station, Odenton MARC, Dorsey MARC, Falls Road and Mt. Washington Light Rail stations. EV charging is also available at Baltimore's Penn Station. This initiative is part of the MTA's commitment to the environment along with the conversion of Local Buses to hybrids and clean diesel as they move closer to the creation of a Green Mobility system that provides commuters with an integrated and sustainable way to get from place to place.

Key Initiatives (continued)

MDTA: MDTA is addressing the EPA 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 the goal of treating 20% of untreated impervious surfaces by 2020. MDTA performed 1,198 combined erosion and sediment control inspections, independent environmental monitor inspections and quality assurance inspections with one non-compliance finding in FY 2014 for a compliance rate of 99.9%.

Regarding renewable energy, MDTA began coordinating for the temporary placement of wind anemometers at the Point Breeze and Francis Scott Key facilities to evaluate the potential for installation of wind turbines.

MDTA commenced with evaluating the usage of E-85 Ethanol among its fleet vehicles for the purpose of developing strategies for improving E-85 consumption.

- MPR: The 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.
- MVR: The MVA believes that the protection of the environment and sustainability of natural resources are essential elements of its mission. MVA management is committed to making the environment a priority by providing adequate leadership, systems and resources to support State energy and waste reduction program efforts. In 2013, MVA recycled 27% of its solid waste.
- SHA: SHA is increasing the use of recycled materials in highway construction in an effort to reduce greenhouse gas (GHG) emissions and landfill waste. In CY 2013, 153,481 tons of recycled asphalt pavement was used on SHA highway construction projects. Both Warm Mix and Foamed Asphalt applications are in use to reduce project costs and environmental impacts.

Planning, design and construction activities to meet the EPA Chesapeake Bay Restoration goals are ongoing. To improve water quality and provide greater ecological habitat functions, SHA is pursuing new stormwater control facilities, retrofitting existing stormwater controls, pavement removal, tree planting, stream restoration and outfall stabilization for Bay restoration and local TMDL compliance. SHA is also pursuing wetland, stream and forest banking sites for project mitigation. SHA successfully restored original functionality to 121 stormwater facilities in FY 2014. In spite of an increase of 8% in SHA's stormwater management facility inventory, approximately 90% of Best Management Practices (BMPs) are functioning as designed.

SHA continues to far exceed the 20% facility recycling rate mandated under the Maryland Recycling Act, and achieved a recycling rate of 59% in CY 2013.

SHA competed against the 16 largest energy-using State agencies in the Maryland Department of General Services (DGS)-sponsored Maryland Energy Cup Competition to win first place in electricity reduction by cutting electricity usage by 28% since 2008.

Maryland Aviation Administration

MAA promotes stewardship of Maryland's environment while keeping its people and economy moving. Approaches include recycling, energy efficiency, natural resource protection, community enhancement and alternative energy initiatives.

Recycle: Continue to recycle at least 20% of BWI Marshall's solid waste, including refuse, building materials and pavement.

Energy Efficiency: Implement an Energy Efficiency Program for BWI Marshall and Martin State Airport, including comprehensive lighting improvements and energy infrastructure replacement projects. The Energy Efficiency Program includes water efficiency projects such as installing ultralow flow toilets, faucets and shower heads to reduce water consumption, and electric car charging stations to promote the use of battery-powered vehicles.

Environmental Protection: As the landlord for the more than 3,200 acres that comprise BWI Marshall, 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 that protect the environment.

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 Noise Zone. The MAA also implements a DOT Secretary Community Enhancement Program that provides improvement grants for community-sponsored projects.

Alternative Energy: To reduce the amount and cost of energy used, the MAA installed a 505 kW solar PV system on top of the BWI Marshall daily parking garage.

Outdoor Recreation: BWI Marshall partnered with Zagster, a company that provides turnkey bike sharing services, to provide bicycles to travelers, employees and members of the public for use on the BWI Trail.

Ride the BWI Trail with Zagster

Borrow a bike at the Light Rail station outside the terminal by Concourse E Go to Zagster.com/BWI or get the free Zagster mobile app to start riding



Bike rentals are open to the public. You must be 18 years or older to ri

Zagster



SHA: Percent of Compliance on Erosion & 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

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 performed over 4,000 ESC inspections with only 17 non-compliance findings documented by SHA's Quality Assurance Team in FY 2014
- SHA's overall annual ESC percentage of compliance in FY 2014 was 99.6%
- SHA offers the basic ESC course (Yellow Card) for contractor superintendents and ESC managers, and at the end of FY 2014, 4,945 SHA employees, consultants and contractors have been certified

What Are Future Performance Strategies?

- The quality assurance (QA) rating system 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 ESC field changes during construction. A nine-month pilot to test this new procedure was completed in FY 2014. SHA will complete the process of collecting and analyzing data for MDE review in early FY 2015
- Continue to deliver ESC training and certification programs for contractors and inspectors, and a certification training program for designers
- Plan, design and construct storm water controls and alternative water quality improvement strategies in Maryland Phase I and Phase II Counties in order to meet the EPA Chesapeake Bay Restoration Goals by the year 2025 (\$598.9 million in the FY 2015–FY 2020 CTP for TMDL)

Why Did Performance Change?

- 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
- Conducted employee outreach to encourage use of the newly constructed E-85 distribution facility at the Hanover Complex and at other existing and planned E-85 fueling stations at Maryland State Police facilities
- Continued purchases of more flex-fueled vehicles in FY 2014 and continued outreach efforts to use E-85 fueling facilities resulted in an 80% increase in E-85 usage
- Evolved the SHA fleet to maximize efficiencies as allowable; consequently, SHA has reached a plateau in use reduction and fuel efficiency. Fuel efficiency of sedans continues to increase, but the same cannot be said of SHA trucks and construction equipment, both of which are essential to SHA's core mission

- 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).





Why Did Performance Change?

- MPA conducted tree plantings/meadow habitat mitigation project at the Hawkins Point Dredged Material Containment Facility (DMCF) to stabilize the site and improve habitat
- The MPA was recognized twice for its environmental initiatives, receiving a successful recertification audit of its Environmental Management System (EMS) from the International Organization for Standardization (ISO) 14001, and the Innovative Best Management Practice (IBMP) Award for its Algal Turf Scrubber[®] (ATS) from the Chesapeake Stormwater Network

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
- 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
- Implement enhanced isolation and containment of the Chrome Ore Processing Residue Remediation (COPR) at Dundalk Marine Terminal (DMT), to remediate for past environmental contamination (\$46.9 million for COPR in the FY 2015–FY 2020 CTP)

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

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



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

Why Did Performance Change?

- The VEIP compliance rate for FY 2014 increased to 92% when compared to the FY 2013 rate of 88%; the methodology established for this metric reflects vehicles with an actual final test outcome and increases as time goes by; it does not reflect the actual tracking and flagging
- In partnership with the MDE, continues to develop strategies, policies and regulations to ensure compliance with State emissions testing mandates and federal clean air standards
- Continued to monitor wait times and implement process/ procedure changes where necessary to maintain current wait time levels

- Actively research new technologies and services to facilitate a more efficient vehicle emissions testing process and progressively monitor registered vehicles in eligible (nonattainment) 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
- Continue partnership with the MDE to develop strategies, policies and regulations to ensure compliance with State emissions testing mandates and federal clean air standards

Travel Demand Management (TDM)

Maryland's transportation agencies promote 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.

RGENCY	TOTAL SPACES	AVERAGE WEEKDAY UTILIZATION*
SHA (2014) (Estimated)	13,100	7,700
MTA (2014)	33,195	13,082***
Transit Multipurpose**	19,209	10,682***
Total	65,504	31,464

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

- ** Includes facilities operated by MTA, Amtrak, WMATA, Penn Station in Baltimore and Union Station in Washington, D.C.
- *** MTA is currently reviewing parking space utilization data for 2014, an update is anticipated in 2015.



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

** MTA is currently reviewing parking space utilization data for 2014, which affect VMT reduction; an update is anticipated in 2015.



Why Did Performance Change?

- In CY 2014, construction began on 490 additional spaces funded the previous year, with an estimated completion date in CY 2015
- Statewide park-and-ride lots were at 59% capacity in CY 2013, which is in line with the historic average

- As part of master development agreements associated with jointdevelopment at Transit-Oriented Developments (TODs), negotiate increased park-and-ride facility capacity
- Continue to install EV charging stations at park-and-ride locations
- 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
- MTA is in the process of procurement for a Bus Communications System Upgrades which includes a 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
- SHA will construct 613 spaces and advertise 100 spaces in FY 2015
- SHA has installed overnight parking spaces for long-haul trucks with auxiliary power units, to reduce emissions from extended idling, as a pilot test

MDOT: Reduction in Vehicle Miles Traveled Through Transportation Emission Reduction Measures (TERMS)

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



2014 MDOT and MTA TRANSPORTATION EMISSION REDUCTION MEASURES

PROGRAM	PROGRAM DESCRIPTION	DAILY REDUCTION IN VEHICLE TRIPS*	DAILY REDUCTION IN VEHICLE MILES OF TRAVEL*
Commuter Connections	Transportation Emission Reduction Measures**		
Guaranteed Ride Home	Provides transit users or carpoolers up to four rides home per year in a taxi or rental car in the event of an unexpected personal or family emergency	7,711	212,834
Employer Outreach	Supports marketing efforts to increase employee awareness and use of alternatives to driving alone to work every day	78,553	1,327,044
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	2,379	66,442
Commuter Operations and Ridesharing Center	Updates and maintains the Commuter Connections database for ride-matching services and provides information on carpooling, vanpooling, telecommuting, bicycling and walking for the Washington-Baltimore metropolitan region	23,662	488,226
Telework Assistance	Provides information to employers in Maryland on the benefits of telecommuting and assists in setting up new or expanded telework programs for employers	9,651	205,511
Mass Marketing	Promotes and communicates the benefits of alternative commute methods to single- occupant vehicle commuters through the media and other wide-reach communications	10,294	173,269
MTA Transportation Em	ission Reduction Measures		
MTA College Pass	Offers a subsidized monthly transit pass to full- or part-time students enrolled in greater Baltimore metropolitan area colleges or universities	3,352	26,478
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	14,411	243,115
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	2,790	47,063

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

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.

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



* Emissions calculated using EPA MOVES2010b model.

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



- Promote mobile source emission reduction efforts including support of TERMs. MDOT supports the reduction of emissions through congestion mitigation, ridesharing and commuter incentive programs (\$26.2 million in dedicated funding in the FY 2015–FY 2020 CTP)
- Implement the Baltimore Regional Transportation Board (BRTB) and the Metropolitan Washington Council of Governments' (MWCOG) 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
- MTA is procuring eight new diesel locomotives and repowering six locomotives to support continued safe and reliable MARC operation and comply with EPA air quality emissions standards
- The EPA awarded a grant of \$750,000 for the Port of Baltimore's Dray Truck Replacement Program, extending the program through March 2016. The program allows for owners and operators of short-haul dray trucks to purchase newer, cleaner trucks that meet or exceed 2010 EPA emission certified engine standards. The \$750,000 grant is funded through the Diesel Emission Reduction Act and will help Baltimore replace at least 22 older dray trucks
- FHWA approved the use of \$200,000 in Congestion Mitigation and Air Quality (CMAQ) funds to help fund a \$440,000 Dray Truck Replacement Program at the Port of Baltimore

MDOT: Transportation-Related Greenhouse Gas Emissions

A reduction in the growth of overall 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 Single-Occupancy Vehicle (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 23.5 mmt CO2e in 2020.
- ** MMT stands for million metric tons, the standard unit of measurement for GHG emissions. Emissions calculated using EPAs MOVES2010b model.

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 Maryland 2012 Greenhouse Gas Emissions Reduction Act Plan
- Additional funding made available through the Transportation Act is continuing to support progress in planning for and implementing programs and projects to improve accessibility and performance of alternative modes of transportation in both urban and non-urban locations throughout Maryland
- MDOT implemented emission-reduction strategies in nonattainment areas to foster alternative modes, including carpooling and transit, for commute trips
- In FY 2014, 50 40-foot hybrid diesel-electric buses were delivered to MTA and are now in revenue service
- Vehicle GHG emissions are continuing to decrease nationwide due to improved vehicle technologies, and growing consumer preference and improved price competitiveness for more fuel efficient vehicles including hybrid and electric vehicles. This decrease is occurring despite evidence that VMT growth is beginning to rebound from recent years of decreasing or stagnant VMT trends
- GHG emissions from cargo handling equipment at the Port of Baltimore has decreased 26% from 2006 to 2012



- MDOT is currently undertaking an update of the MDOT Climate Action Plan. The plan will estimate emission reductions associated with implementation of the FY 2015–FY 2020 CTP
- 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
- SHA is using the FHWA Infrastructure Carbon Estimator Tool to estimate life cycle energy and GHG emissions; use of this tool will make data comparable among other state DOTs
- SHA completed the Climate Change Adaption Plan with Detailed Vulnerability Assessment (Pilot Study) in Anne Arundel and Somerset counties. Study aid in assessing the vulnerability of SHA's transportation infrastructure and identify adaptation measures for asset management
- Encourage 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 with purchases of hybrid diesel-electric buses to replace buses in service for 12 or more years
- 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 EV adoption and are intended to provide sufficient support to reach an ambitious goal of 60,000 plug-in electric vehicles (PEVs) on the road in Maryland by 2020, or 2.3% of the State's passenger vehicle fleet
- MDTA 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

G©AL: Community Vitality

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

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

Each year, MDOT and the modal agencies work together to ensure that Maryland's transportation network is connected not only within modes, but across and between all modes, to support communities and healthy ways of life. Initiatives led by MDOT and its modal agencies provide for the linkage of highway, transit, bicycle, airport and pedestrian facilities. Biking and walking, as well as the promotion of Transit-Oriented Development, are strongly supported by planning, program and project initiatives. Collectively, these efforts build upon the state's transportation infrastructure to enhance the safety and reliability of urban and rural connections and improve accessibility to jobs, commerce and recreation.

At the street-level scale, the SHA Complete Streets policies highlight the need for small-scale design to ensure that Maryland's roadway corridors also allow for the safe passage of all users including pedestrians and bicyclists. Other programs within Maryland that strongly support pedestrians and bicycle programs in the state include the Bikeways Program, Community Safety and Enhancement, Recreational Trails and Transportation Alternatives. These programs have not only addressed key missing links in both regional and local trails and sidewalk networks, but have also improved connections to transit, work, school and other destinations, supporting viable healthy options for Marylanders.

TOD is also a key component of Maryland's efforts to ensure efficient use of the State's transportation system, and promote sustainable, Smart Growth development within the state. Sixteen transit stations have been designated as State Designated TODs, positioning these places to receive technical assistance, potential prioritization in funding decisions, unique financing options, eligibility for Sustainable Community Benefits programs and access assistance from SHA and MTA. Collaboration is required to develop TOD through transit-supportive land use policies, pre-development planning, policy and program support, joint development partnerships, and infrastructure investments.





Key Initiatives

- **MDOT:** Support alternative transportation options by improving transit, pedestrian and bicycle accessibility, by improving state and local infrastructure connectivity. Provide technical support and grant program assistance in support of Sustainable Communities, through station area enhancements, Transit-Oriented Development, the Bikeways Program, and support for regional economies through such projects as the Baltimore and Potomac (B&P) Tunnel.
- MAR: MAA has a Community Outreach Program for the Office of Noise, Real Estate and Land Use Compatibility Planning that was established to provide an avenue of communication between MAA and local communities. This program includes numerous activities such as BWI Neighbors Committee, Community Enhancement Grant Program, Quarterly Noise Report, Airline Progress Report, and noise monitoring.
- MPR: Continue to support the advancement of rail access at the Port of Baltimore, construction of storage facilities at Fairfield Marine Terminal, reconstruction of berths at Dundalk Marine Terminal, and the improvements to the South Locust Point Cruise Terminal. Establish a Back Gate at Dundalk for over dimensional cargo that will provide a direct route to the Interstate system without going through neighborhoods. Enhance cargo handling and rail access through the \$10 million U.S. Department of Transportation (USDOT) Transportation Investments Generating Economic Recovery (TIGER) grant to complete the Fairfield Marine Terminal rail access project.
- MTR: Continue to advance the development of the Baltimore Red Line and Purple Line Light Rail programs, as well as the Corridor Cities Transitway (CCT). Continue to support the development of the Paul Sarbanes Transit Center at the Silver Spring Metrorail Station, the Takoma/Langley Park Transit Center and improvements at the MARC Halethorpe Station and MARC West Baltimore Station. Increase capacity on the Local Bus network by maintaining articulated coaches, while controlling costs through efficient scheduling and system design.
- MDTA: Support the development of the Intercounty Connector (ICC)/MD 200 between Montgomery and Prince George's counties, increasing community mobility, safety and access between economic growth centers, and supports development and local land use plans.
- MVR: Continue to advance systems and policies within the MVA to provide the highest levels of connectivity and access to customers for services, including electronic delivery through a smartphone/ tablet application, kiosks, real-time wait times and queue lengths, and telephone Interactive Voice Response (IVR) systems.
- SHR: Continue to provide safe pedestrian access along state highways through New Sidewalk Construction for Pedestrian Access Program and the Sidewalk Reconstruction for Pedestrian Access Program. SHA plans to continue constructing sidewalk improvements, and to upgrade intersections with audible pedestrian signals, pedestrian curb ramps and median cut-throughs, while also enhancing the safety and accessibility of bicycle facilities.

Maryland TOD Designation

Since 2008, the Maryland General Assembly has supported the TOD designation, creating TODs as a transportation purpose and providing key tools to support transit oriented development 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 16 designated sites. Currently eight of the sites are undergoing active development, including site planning, developer agreements and construction.

For more information, follow either of these links: http://www.mdot.maryland.gov/TOD or www.todmd.com

White Flint Station TOD



White Flint Station TOD: The Federal Realty Investment Trust "Pike and Rose" project located next to the White Flint Metro Station in Montgomery County has made significant progress since breaking ground in July 2012. The State conveyed 3.7 acres of land to the developer to be assembled into a mixed-use development that, when completed will include 1,500 residential units, 450,000 square feet of retail space, one million square feet of office space, a movie theatre, restaurant, hotel and parking garage. In 2015, Montgomery County is to begin work on a new sector plan between White Flint and the City of Rockville.

Odenton Station TOD: The Odenton MARC Station TOD is comprised of approximately 34 acres in Anne Arundel County that are near Fort Meade and the National Security Agency (NSA). Recent accomplishments in this area include construction of several housing developments and the completion of commercial and health facilities. In 2014, the County was awarded a federal TIGER grant to support redevelopment of the TOD area and proximate infrastructure that will help create a connection for motorized and non-motorized users traveling to business and recreational activities in Fort Meade, Odenton Town Center, and adjoining counties.

Savage MARC Station TOD



Savage MARC Station TOD: In 2014, groundbreaking took place for Howard County's first TOD project, to build the Annapolis Junction Town Center at the Savage MARC Station mixed-use development. The TOD project is located in the designated Base Realignment and Closure (BRAC) Zone, transportation improvements will support continued growth around Fort Meade, spur economic development and increase transit ridership.

Aberdeen TOD Form-Based Code





Aberdeen Station TOD: TOD and form-based codes have been adopted into law by the City of Aberdeen City in 2014. Both the Master Plan and the TOD District code are designed to maximize the development potential of downtown Aberdeen within ¼ to ½ mile around the Aberdeen MARC Commuter Rail and Amtrak Station.

New Carrollton Station TOD: Officials broke ground in 2014 on a new Maryland Department of Housing and Community Development (MDHCD) headquarters at the New Carrollton Metrorail station, the eastern terminus station for the future Purple Line. Activities underway include the development of a TOD plan and a transit facilities plan.

TOD Goals and Objectives:

- **Transportation Efficencies**: By promoting relatively dense, walkable mixed use communities accessible by transit, biking and walking, TOD can expand transportation options and support transit ridership.
- Social Benefits: Enhanced station environments can result in improved access to education, employment and other amenities, while lowering household transportation costs.
- Environmental Benefits: By supporting transportation alternatives to auto travel, TOD can help reduce congestion and the air quality problems associated with it.
- Economics Benefits: TOD can be part of a successful strategy to help revitalize and enhance local economies.

MTA: Average Weekday Transit Ridership

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



TARGET: Double transit ridership statewide by 2020

* To maintain the integrity of historical comparisons of bus ridership the MTA used ridership estimate differences between the new APC system and previous systems to adjust previous bus ridership estimates and allow for comparable data for fiscal years.

Why Did Performance Change?

- Beginning in FY 2014, MTA upgraded its bus ridership counting system to enhance service planning and scheduling functions. This new Automatic Passenger Counting (APC) system uses computerized sensors to count passengers as they board and alight the vehicle. Compared to previous systems, the APCs provide the most accurate estimates of bus ridership to date and more robust route and stop level data for planning decisions
- Federal sequestration for two weeks in October 2013 affected ridership specifically on MTA Commuter Bus and MARC
- Heavy rains/flooding and winter storms affected ridership throughout FY 2014
- Heavy rains/flooding and winter storms affected MTA Light Rail, causing closure to the BWI Marshall stations for track repair and catenary repair and to the Cold Spring area due to wash outs and track repair
- The Charles Village street collapse in April 2014 affected ridership specifically on MTA Light Rail and MARC
- Increased rail service between Baltimore and Washington by introducing weekend service on the Penn Line and added more train to the Camden Line
- Commuter Bus service enhancements, including adding ICC/ MD 200 routes 201, 202, 203, 204 and 205, provided an efficient alternative to driving

- Increase service reliability with investment in Local 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 Americans with Disabilities Act (ADA) platform improvements for MTA, MARC and Commuter Bus stations to better accommodate current customers and expected growth
- Implemented Phase 1 of the Bus Network Improvement Project (BNIP), which will analyze ridership and regional land use to provide the groundwork for a multiphase plan for updating and improving MTA's bus service
- 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 (OTP)
- 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 CCT New Start projects of the MTA (the FY 2015–FY 2020 CTP includes \$92.5 million for the CCT, \$1.3 billion for the Purple Line (not including the Montgomery County Funded Projects) and \$1.4 billion for the Baltimore Red Line)



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.



REVENUE MILES (Millions)

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

Why Did Performance Change?

- Rescheduling service where needed in FY 2014
- FY 2014 experienced several storms, federal government closures and the Charles Village landslide causing closure and/or delays of MARC service, and caused closure to the BWI Marshall stations for track repair and catenary repair and to the Cold Spring area due to wash outs and track repair
- Commuter Bus service enhancements, including adding ICC/MD 200 routes 201, 202, 203, 204 and 205, provided an efficient alternative to driving
- A large increase in Paratransit & Taxi Access mileage is due to the large increase in the number of trips provided
- In FY 2014, Baltimore Metro performed scheduled track repair and maintenance affecting service from 10pm-6am; this impacted the total revenue miles, but had little impact to the riding public

- Advance projects which expand the fixed guideway transit network, including opening of the Red Line, Purple Line and CCT New Start projects of the MTA (the FY 2015–FY 2020 CTP includes \$92.5 million for the CCT \$1.3 billion for the Purple Line (not including the Montgomery County Funded Projects) and \$1.4 billion for the Baltimore Red Line)
- MDOT funds urban and rural LOTS operators to support regular vehicle replacement and expansion, as well as adequate support facilities providing reliable maintenance
- Increase or reallocate service miles, where needed, to maximize transit availability
- Implemented Phase 1 of BNIP, which will analyze ridership and regional land use to provide the groundwork for a 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 & 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.



* 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.

** 2010-2014 data are based on a new data collection method that cannot be accurately compared to previous years' data.

Why Did Performance Change?

- Invested \$20.1 million in FY 2014 to improve and construct sidewalks to specifically address ADA accessibility
- Increased the percentage of existing traffic signals which are accessible pedestrian signal equipped to 62% since the program began in FY 2006
- Invested \$3.0 million in FY 2014 to construct new sidewalks; this includes the construction of eight new directional miles of sidewalk

What Are Future Performance Strategies?

- Support safe pedestrian access along State highways (\$25.6 million for the New Sidewalk Construction for Pedestrian Access Program and \$69.8 million for the Sidewalk Reconstruction for Pedestrian Access Program (ADA Compliance) in the FY 2015–FY 2020 CTP)
- Continue to target funds towards areas to increase accessibility to transit and other services, as well as areas of high pedestrian injuries and fatalities
- Construct numerous sidewalk improvement projects in FY 2015, including MD 355 in Chevy Chase, US 40 AL in Hagerstown, MD 17 in Myersville, MD 228 in Waldorf and MD 550 in Thurmont
- Continue to upgrade intersections with audible pedestrian signals, countdown pedestrian signals and ADA features (pedestrian curb ramps and median cut-throughs)
- Annually work with urban counties and local governments to identify new sidewalk projects
- Program and construct improvements to increase directional miles of urban roadways with sidewalk



SHA: Percentage of State-Owned Roadway Centerline Miles with a Bicycle Level of Comfort (BLOC) Grade "D" or Better & 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.



* In the future, Bike and Pedestrian Attainment Report performance measures might include 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.

***2014 BLOC is preliminary and subject to change.

Why Did Performance Change?

- Slight decrease in BLOC likely due to VMT increases, which usually affect how comfortable bicyclists feel riding on roads
- Spent \$2.0 million in FY 2014 for dedicated bicycle improvement projects
- Improvements consists of 117.8 miles of bicycle lanes and 1.6 miles of shared lanes (all increased miles were not constructed in FY 2014, but were not reported in previous years)

- Focus bicycle improvements on roadways near transit facilities; projects are planned for construction in FY 2015 in Linthicum near the Light Rail station and in Halethorpe near the MARC station
- Implement bicycle improvements to the maximum extent feasible within the scope of work on all SHA projects and support bikeway projects along State highways (\$17.5 million for the Bicycle Retrofit Program in the FY 2015–FY 2020 CTP)
- Effectively communicate safety and roadway conditions about bicycling to the general public
- 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
- Complete development of a bicycle route policy is being developed as part of the updated bicycle guidelines to help define how routes should be designated, designed and signed

SHA & MDTA: Percent of VMT in Congested Conditions on Freeways/Expressways & 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.



*2014 data is preliminary and subject to change.

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 (NS) railroads.



* 2013 data revised from previous Attainment Report.

** 2014 data is preliminary and subject to change.

Why Did Performance Change?

- Percent of VMT experiencing congestion on arterials in the evening peak hour has remained constant from 2012 to 2013; this could be attributed to the relatively flat demand on the arterial system
- SHA will continue its mobility/congestion management initiatives on arterials to provide safe and efficient operations on arterials are freeways/ expressways
- Percent of VMT experiencing congestion on freeways/expressways in evening peak hour decreased from 2012 to 2013; possibly attributed to the VMT that has remained relatively flat compared to previous years. Major projects like the ICC/MD 200 have resulted in congestion relief on parallel facilities
- Some system preservation activities and construction projects on major highways were completed in 2012, which resulted in improved operations in 2013

What Are Future Performance Strategies?

- SHA will develop and implement low cost geometric improvements to alleviate congestion hotspots on the arterial system
- Continue working on long-term multimodal solutions that enhance safety, mobility and reliability of the arterials including some Bus Rapid Transit (BRT) projects
- Continue signal retiming and optimization program to improve arterial operations
- Continue to develop short-term congestion management solutions (geometric improvements, incident management, special event planning, Intelligent Transportation Strategies (ITS)) to improve traffic operations on its freeways/ expressway systems
- Focus on the incorporation of strategies that improve reliability of the transportation system; SHA will look at implementing Transportation Systems Management and Operations (TSM&O) strategies to improve mobility and reliability
- Continue developing long-term multimodal solutions that enhance safety, mobility and reliability of the transportation system

Why Did Performance Change?

- NS numbers continue to be greater than CSX mainly because of a contract with several South American carriers that exports from the Mid-West; this makes up a large percentage of these movements
- NS provides a service called "Bal Piers" that includes a dray to their Bay View facility that is transparent to the customer as well as being efficient and well run

- 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 (\$38.6 million in the FY 2015–FY 2020 CTP for Port of Baltimore Export Expansion Project)
- Although a new Intermodal Container Transfer Facility (ICTF) is no longer planned at CSX's Mt. Claire Yard, there is still positive news associated with international intermodal rail in Baltimore, specifically at Seagirt
- Ports America is working with CSX to develop a new operating arrangement that will bring new efficiencies to the ICTF
- Ports America is also working with the MPA to develop an international intermodal rail incentive to help stimulate rail growth at Seagirt by bringing the costs down to competitive levels

GSAL: Economic Prosperity

Support a healthy and competitive Maryland economy

Objectives

- 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

Maryland's multimodal transportation system plays a vital role in the State's economy, enabling the efficient flow of people and goods to, from, and within the state. The State's residents depend on this system for commuting to work and for shopping, education and other personal activities, while businesses rely on the system to access its workforce, for incoming deliveries of materials and outgoing delivery of products to markets.

Without adequate spending to maintain the facilities and operate services, these household and business activities would, over time, become more difficult and more costly to sustain. Transportation infrastructure provides value, and investing in Maryland's transportation system creates jobs and supports Maryland residents and businesses. The investments in the FY 2015–FY 2020 CTP represent a multimodal and integrated approach to supporting economic growth and diversity in Maryland. Priority investments in the CTP support new and improved transit services—in today's economy, transit represents a sustainable and permanent investment that supports job opportunities and a better future for hundreds of thousands of people in Maryland. MDOT also promotes biking and walking as transportation modes. Recent studies have highlighted the strong rates of economic return that bicycle and pedestrian projects can have, supporting job creation, tourist activity and cost-savings for household transportation budgets.

Maryland's location at the crossroads of the I-95 corridor and significant rail and marine corridors means that infrastructure in Maryland is critical to the State, regional and national economy. MDOT is taking an aggressive approach to implement multimodal freight solutions in Maryland and the greater multistate region. MDOT is working with stakeholders to assess the feasibility of initiatives that could improve freight movement through Baltimore, such as: implementing cost-saving operational efficiencies at Seagirt Marine Terminal, introducing potential shipping incentives for international cargo, and incorporating double-stack freight capacity into the replacement of Amtrak's Baltimore & Potomac (B&P) Tunnel.

Maryland has been working to enhance the State's capacity and framework to implement innovative financing and project delivery mechanisms for vital infrastructure projects. A key tool for innovative project delivery is Public Private Partnerships (P3), which leverage the expertise and efficiencies of the private sector for the delivery of large infrastructure projects. The Purple Line P3 meets MDOT policy objectives by providing faster, more reliable transportation access to existing radial Metrorail lines, increasing transit capacity in congested corridors, supporting economic development consistent with regional long range transportation plans and local master plans, and reducing overall environmental impacts.



Key Initiatives

- **MDOT:** Over the next six years, an additional \$440 million for transportation investments has been programmed in the FY 2015–FY 2020 CTP to improve travel to and from Maryland military bases, which will bring the total investment by MDOT and federal government to \$1.6 billion. In the FY 2015–FY 2020 CTP, \$70 million is dedicated for Base Realignment and Closure (BRAC) transportation projects, including projects supporting access to Walter Reed National Military Medical Center, Fort George G. Meade, Joint Base Andrews and Aberdeen Proving Ground.
- MRR: In 2014, Southwest began new season service to Oakland, CA, and Portland, OR, creating new economic opportunities for Marylanders. BWI Marshall terminal improvements include enhanced concession opportunities on the new secure connector between Concourse D and Concourse E, increasing opportunities for economic revenue at the airport.
- MTR: Working to improve rail service, reliability and address a longstanding bottleneck along Amtrak's busy Northeast Corridor (NEC), the Federal Railroad Administration (FRA), MDOT and Amtrak are advancing two engineering and environmental studies to examine improvements to infrastructure in Maryland. Both the \$60 million study for the B&P Tunnel in Baltimore and the \$22 million study for the Susquehanna River Bridge in the Maryland NEC include public outreach and opportunities for residents and commuters to learn more about the project's purpose and need.
- **MDTR:** Continue to support the *E-ZPass*[®] system to expedite the toll collection process, reduce toll plaza delays, decrease emissions and increase revenue for the agency.
- MPR: With the support of Senators Mikulski and Cardin and our U.S. House Delegation, the Port is benefiting from a \$10 million U.S. Department of Transportation (USDOT) Transportation Investment Generating Economic Recovery (TIGER) grant that will increase the Port's cargo handling capacity and provide rail access at its Fairfield Marine Terminal. The \$29 million project will use dredged material from the Seagirt Marine Terminal's access channel to fill an aging basin and create a 7.6-acre cargo staging area in a prime location near the vessel berth. Rail access will also be added at Fairfield to improve the Port's handling of autos and roll-on/roll-off (RoRo) equipment.
- MVR: Invest in new technologies to maintain secure and accessible data for drivers and vehicles in Maryland. Promote efficiency and cost-effective measures at MVA offices, during license and registration processes, and in partnerships with Law Enforcement, Child Support Enforcement, Arrest Warrants, Courts Point System, Tax Compliance, Board of Elections, Organ Donor, and the Chesapeake Bay and Agriculture Programs.
- SHR: Continue to monitor performance and make adjustments in the roadway access permit process, and evaluate the potential expansion of the Coordinated Highways Action Response Team (CHART) program to determine its effect on user cost savings and reduction of delay on Maryland roadways.

Maryland Freight: Improving the Movement of Goods

Efficient and interconnected multimodal freight movement is essential to the health of any economy. 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.

Freight Originating and Terminating in Maryland

METHOD FOR MOVING FREIGHT	TOTAL VALUE (MILLIONS)	TOTAL TONNAGE (THOUSANDS)
Air	\$4,107*	105
Other**	\$50,706	14,099
Rail*	\$10,008	26,667
Truck*	\$328,524	275,612
Water	\$52,600****	30,274***
All Freight	\$445,945	346,757

* 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.

- ** 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, 2013.
- **** Source is MPA-compiled data for 2014.



Maryland Freight Highlights

- Water is well-suited to cost-effectively haul goods long distances. Commercial ships utilize the Port to transfer waterborne goods to land—at which point trucks and rail haul these imported goods to communities around the nation. The Port's operations also serve companies that make and ship goods for export. MPA terminals handle many commodities, including RoRo equipment, automobiles, forest products, containers and project cargo. The Port continues to enhance its operational capabilities and infrastructure through funding provided in the FY 2015—FY 2020 CTP, and from other sources. The economic activity at the Port has a direct and indirect positive impact on local and statewide jobs.
- Heavy goods that need to be hauled long distances are typically moved by rail. Examples
 of these commodities hauled on Maryland's Class I railroads include coal, chemicals and
 nonmetallic minerals. 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 I railroad service, while State-owned short lines on the
 Eastern Shore provide multimodal freight options to rural agricultural, manufacturing and
 distribution firms.
- 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.
- High value and time-sensitive products are commonly shipped via air. The top air freight commodities shipped out of MAA facilities include mail, machinery and transportation equipment. To support commercial cargo, BWI Marshall offers warehousing, transportation and distribution for air cargo–and easy, interconnected access to Maryland's transportation system. The MAA continues to invest in transportation 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.

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

There are many factors that influence the movement of freight at the Port of Baltimore: 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, incentive programs at other ports, 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. **2014 data is preliminary and subject to change.

Why Did Performance Change?

- In FY 2014, MPA handled 9.6 million tons of general cargo, which is a new FY record at +0.5% over FY 2013
- MPA saw increases in automobiles (+10.6%) and containers (+1.4%) in FY 2014
- The Port of Baltimore saw overall tonnage drop in CY 2013. This was mainly due to sharp declines in coal exports (-23.1%) because of the resurgence of Australian coal exported to China, and iron ore/coke imports (-99.2%), because of the closure of the steel mill at Sparrows Point
- In 2013, there were 751,000 light trucks and automobiles that moved through the Port, making the Port the largest automobile port in the nation
- RoRo (farm, mining and construction equipment) fell 7.4% at MPA terminals due to weakness in the overseas markets. The Port remains the largest RoRo port in the USA
- Signed a new tenant at Fairfield Marine Terminal
- Paved Dundalk Lot 5 to allow this site to handle cargo and terminal operations
- Constructed a new cargo gate for South Locust Point, which uses the same technology as at Dundalk truck gate. This will improve security, capacity, and processing times

ACL

 The Port's national rankings include the following: ranks #14 in foreign cargo tonnage (30.3 million tons); ranks #9 in the value of foreign cargo (\$52.6 billion); ranks #1 in Autos and RoRo Heavy Equipment; ranks #1 in imported: Sugar, Gypsum, Alumina and Forest products; and ranks #2 in exported Coal

What Are Future Performance Strategies?

- Continue the Quality Cargo Handling Action Team (Q-CHAT) 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 (\$584,000 in the FY 2015–FY 2020 CTP for Masonville Vessel Berth Construction, this new berth will be capable of accommodating the world's fleet of Auto and RoRo ships)
- Develop new Dundalk gate procedures to increase volumes of privately owned vehicles as it relates to Transportation Worker Identification Credential (TWIC) escorts
- Work with P3 partner, Ports America Chesapeake, to attract additional containerized cargo to the Port of Baltimore
- 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
- Continue with rail and terminal improvements to facilitate heavy lift cargo and expansion of project cargo (\$29.7 million in the FY 2015–FY 2020 CTP to Reconstruct Dundalk Marine Terminal Berth 4 to meet future cargo and vessel needs)
- Continue to target auto and machinery manufacturers to provide long-term contracts
- Construct an Over-Dimensional cargo gate at Dundalk to reroute cargo out of neighborhoods. Continue to coordinate roadway permit issues with the City to facilitate cargo movement and positive community relations
- Continue working to retain existing forest product customers. Facilitate efforts to
 maintain market share and volumes during current global economic downturn. Try
 to find new tenants/customers to use available shed space, and consider providing
 incentives to attract cargo as appropriate
- To grow cargo volumes, purchase parcel(s) of land adjacent to or in the vicinity of existing marine terminals at the Port of Baltimore (\$7.3 million for Marine Terminal Property Acquisition in the FY 2015–FY 2020 CTP)

AC

MPA: Revenue, Operating Expense & 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.



* The cost data is adjusted for inflation.

Why Did Performance Change?

- MPA's net income was \$2.5 million for FY 2014, which is \$3.8 million less than the prior year as a result of increased operating expenses
- An increase in utility expense, along with an energy performance debt payment, accounts for approximately \$3.8 million increase in expenses; it is anticipated that over time, the energy performance project will substantially reduce energy consumption
- MPA's billable cargo tonnage reached 12 million tons, representing a 5% increase over FY 2013
- Over 452,000 passengers sailed on 104 cruises leaving from the South Locust Point Cruise Terminal in FY 2014

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 and maintain efficient and effective contract management and internal project delivery
- Continue efforts to increase World Trade Center occupancy
- Maximize cargo volumes through the Port through business synergies developed with MPA public private partner, Ports America Chesapeake
- Continue promoting the Port as a convenient location for year round cruising for the large drive-to market in the Mid-Atlantic area, continue the partnership with existing cruise lines and develop new opportunities for additional cruise lines
- 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 ninestate South Atlantic Census Division

MPA: International Cruises Using the Port of Baltimore

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

Calendar Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
Number of international cruises using MPA's terminal	28	28	29	27	81	90	105	100	91	89

TARGET: 93 cruises in 2016

*2014 data is preliminary and subject to change.

Why Did Performance Change?

- Carnival Cruise Lines and Royal Caribbean International reports that their ships are sailing at over 100% capacity (more than two people per cabin)
- Royal Caribbean International and Carnival Cruise Lines continue to offer year-round service from the Port of Baltimore, and both lines intend to continue operating out of the Port for the near term
- Carnival Cruise Lines will remove their ship in late 2014 to install exhaust scrubbers to reduce ship emissions; however, in 2015, Carnival will resume seven-day, year-round cruises onboard the Carnival Pride ship
- The Port is 10th in the nation and 5th on the U.S. East Coast for the number of cruise passengers

- Continue promoting the Port as a convenient location for year-round cruising
- Continue the partnership with existing cruise lines and develop new opportunities for additional cruise lines to come to Baltimore
- Continue to improve the terminal facility by adding a covered breezeway for security and weather protection; expand the Wi-Fi capabilities; replace check-in counters and carpeting; add permanent outside restroom facilities; provide online prepayment options for parking; enhance terminal's public address (PA) system
- Monitor impacts of sulfur-reducing Emissions Control Area regulations and size of the future cruise fleets on the USA Cruise business with a focus on Chesapeake Bay

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?

- In FY 2014, Southwest began new season service from BWI Marshall to Oakland, CA, and Portland, OR; both cities are new markets for the airport
- Spirit added service to Chicago/O'Hare and Minneapolis Saint Paul
- Met with both potential new entrant and current carriers to promote potential new air service opportunities to BWI Marshall
- Southwest Airlines launched its first-ever scheduled international flights, Southwest now provides nonstop service between BWI Marshall and Aruba, Montego Bay, and Nassau (the routes were previously serviced by AirTran Airways, a subsidiary of Southwest)
- Alaska Airlines, a new carrier for the Airport began service in September 2014; Alaska Airlines now offers year-round nonstop service between BWI Marshall and Seattle

What Are Future Performance Strategies?

- Continue to 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.



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.

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

Why Did Performance Change?

- BWI Marshall's non-airline revenue per enplaned passengers decreased by \$1.5 per passenger from 2013 to 2014, when the revenue-generating concessions in the D/E connector, revenue is expected to increase
- BWI Marshall continues to compare favorably with its peer airports on non-airline revenue per enplaned passenger
- An increase in connecting passengers is being monitored for its effect on non-airline revenue as connecting passengers spend less money at the airport than a local passenger

- 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
- Monitor effect of the increase in connecting passengers on non-airline revenue
- Complete D/E connector and open new concessions for passengers that use this connector

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.



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

* 2014 data is preliminary and subject to change.

Why Did Performance Change?

- Issued 88% of completed access permit applications within 21 days of receiving a completed permit package in FY 2014. This shows steady improvement from FY 2011 (72%), FY 2012 (82%), and FY 2013 (87%). Three of the months in FY 2014 achieved or exceeded the 90% goal
- In FY 2014, there were \$23.6 million in private-sector-funded infrastructure improvements, including approximately \$7.5 million in regional infrastructure improvements because of access permits. This is an increase from the \$17 million in private-sector-funded infrastructure improvements from the previous FY, and is an increase from the \$6 million in regional infrastructure improvements from the previous FY
- Reviewed and issued comments on 84% of the approximate 1,950 submissions of project documents for about 575 developer projects statewide, by the due date
- Enhanced the database to measure the triage process for ensuring submissions are accurate, complete and ready for review or returned to the customer for additional action
- Enhanced the database to begin tracking the reasons for delays to evaluate strategies to improve on time delivery

What Are Future Performance Strategies?

- Continue to monitor performance and make adjustments in the process as necessary to achieve and exceed the 90% goal
- Continue to promote an environment where all parties seek solutions to issues that may delay projects completing the permit issuance phase
- Conduct additional outreach to improve coordination and education of the processes for customers and partner agencies
- Continue to refine the processes that lead to improved communication with customers, local jurisdictions and internal staff
- 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. This helps reduce the number of time-consuming, multiple project submissions by developer teams
- Partner with local government agencies to coordinate the respective development review and approval process to improve communications and reduce the number of project reviews

Why Did Performance Change?

- Helped reduce delay by an estimated 32.7 million vehicle-hours
- Completed 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 20,000 incidents and assisted more than 33,000 stranded motorists
- Increased camera video feed interoperability with other regional agencies to allow for access to 715 camera sites in Maryland
- Implemented an enhancement to the Maryland 511 traveler information system, which provides customized information to support the commercial vehicle industry

- Evaluate the CHART patrol expansion to determine its effect on user cost savings and the reduction of roadway delays
- Continue to explore agency partnerships for the sharing of camera information
- Explore cost-effective uses of limited resources through local, regional and State incident management coordination and collaboration



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.
E-ZPass [®]	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 <i>www.dhs.gov</i> . General information about Maryland's involvement with the REAL ID Act is available on MVA's website at <i>www.mva.maryland.gov</i> .
Smart, Green & Growing	Smart, Green & Growing 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	Signed into law on May 16, 2013, 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

intervaluated Papertiment of Transportation (MDT) Transportation Environ	MTP GOAL	PERFORMANCE MEASURE	DEFINITION
Information- Similar Control import the Additional property division - Summary divisionTFRM and Line Control Additional super-councel division import the Additional property division - Summary divisionTFRM and Line Control Additional super-councel division additional super-councel divisionEnvironmental SouvertahipTransport the Addited envisoon by regionControl Additional Counce Control Additional super-councel division of them centility of the an analy warding hen transport the Addition in Counce of them centility of the analysis warding hen transport the Addition in Counce of them centility of the analysis warding hen transport the Addition in Counce of them centility of the analysis warding hen transport the Addition of the Addition addition in Counce of them centility of the Addition addition in Counce and Manington TaglesExcloremental SouvertahipTransport the Addited envisoon in Many and Soute and termsport in the Addition addition of the Addition addition of the Ad			
Environmental Sawenthip Transcortation-selected emissions by region of Biomagnetic and Biomagnetic Biomagnet Biomagnetic Biomagnetic Biomagnet Biomagnetic Bi	Environmental Stewardship	 Commuter Operations and Ridesharing Center Employer Outreach (including Employer Outreach for Bicycles) 	
Control Provide of Property Provide of Property Provide of Property Control Provide of Property Provide of Property Provide of Property Control Property Provide of Property Provide of Property Control Property Property Property Con	Environmental Stewardship	Transportation-related emissions by region	of Ozone, emitted per day for an average weekday from transportation sources
Executiv Freight originating and termineting in Maryland Jolia and honopell Freight Analysis Termineting (FR) Yessis and Terminet (FR) Yessis and Termineting (FR) Yessis and Termineti	Environmental Stewardship	Transportation-related greenhouse gas (GHG) emissions	
Starty & Sourity Rate of airfield range incidents and accidents per 1,000 operations Incident reports collected by MAA / 1,000 operations ltake offs and landingal Safety & Sourity EVM Marshall crime rate Crimes include all crimes against persons or property at BVM Marshall facilities Safety & Sourity Number of nepeat discrepancies in the annual Faderal Aviation Annual FAA Put 138 Faderal Aviation Fadpitation (FAR) assessment conducted by the Faderal Aviation Administration Annual FAA Put 138 Faderal Aviation Fadpitation (FAR) assessment conducted by the Faderal Aviation Administration Duality of Service Artine core per organed gassenger (FP) Total aritine related fees / Total explaned passengers at BWI Marshall Duality of Service Percent of nonstop alritine markets service Percent of nonstop alritine markets service Economic Prooperity Number of nonstop alritine markets service Total explaned passengers at BWI Marshall Economic Prooperity Number of nonstop alritine markets service MPA activities in support of a compliance (Pass / Fall) resting (concessions, etc.) / Total explaned passengers at BWI Marshall Economic Prooperity MPA compliance with the Maritume Transportation Security Act of 2002 MPA activities in support of a compliance (Pass / Fall) resting from the U.S. Sector Preservation Derdoped material placement topacity remaining for Harbor and Popler MPA activities resting aplacemen	Economic Prosperity	Freight originating and terminating in Maryland (value and tonnage)	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
Seriery Will Marshall arime rate Crimes include all orimes against persons or property at BW Marshall facilities Safety & Sourity Annual FAA Part 139 Federal Aviation Regulation (RAP) assessment conducted by the Federal Aviation Administration Annual FAA Part 139 Federal Aviation Regulation (RAP) assessment conducted by the Federal Aviation Administration Duality of Service Arime cost per explemed passenger (CPE) Total aritime-related fees / Total explemed passengers at BWI Marshall Duality of Service Percent of DWI Marshall automets rating the airport "good" or "excellent" Percent of costomets going a score of 4 or 5 (on a 5 point scale) for "Overall Setsfaction" and "How lifely to thy from BWI Marshall Duality of Service Nome of norstop airline markets served Nonstop flights are direct to destination without connections Economic Prosperity Non-airline revenue per explemed passenger (RPE) Total annual information (MAP) Mary & Security MPA compliance with the Menime Transportation Security Act of 2002 Marabathila compliance (Pass / Fail) rating from the U.S. Coast flaand System Preservation Dredged material placement capacity remaining for Harbor and Popler Morniters asisting capacity remaining at Harbor and Popler Island dredged material placement aites System Preservation Ares of vetlemis or wildlife habitat created, restored or improved and 2000 Comulatete tally of accege crested, restored or improved f	Maryland Aviation Administration (MA	A)	
Safety & Security Number of repeat discregancies in the amual Federal Aviation Annual FAA Part 139 Federal Aviation Regulation FAP) assessment conducted Duality of Service Artine cost per enplaned passenger (CPE) Total airline related fees / Total enplaned passengers at BWI Marshall Duality of Service Percent of EWI Marshall customers rating the einport "good" or "excellent" Percent of customers giving a score of 4 or 5 (on a 5 point scale) for "Overall Duality of Service Percent of EWI Marshall customers rating the einport "good" or "excellent" Percent of customers giving a score of 4 or 5 (on a 5 point scale) for "Overall Economic Prosperity Number of nonstop airline markets served Norstop flights are direct to destination without connections Margland Port Redministration (MPP) Sestem Prosperity Total non-airline revenue (ground transportation, parking, concessions, etc.) / Total enplaned passengers at BWI Marshall Deschged material placement capacity remaining for Harbor and Poplar Morester distributions existing capacity remaining at Harbor and Poplar Island diredgid Duality of Service Average nuck turn-around time at Seagift Marine Terminal Annual time for a truck to enter the Terminal gate, drop off and/or receive a container, and exit the gate Duality of Service Average nuck turn-around time at Seagift Marine Terminal Constance true to enter the Terminal gate, drop off and/or receive a container, and exit the gate </td <td>Safety & Security</td> <td>Rate of airfield ramp incidents and accidents per 1,000 operations</td> <td>Incident reports collected by MAA / 1,000 operations (take offs and landings)</td>	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)
Sately a security Administration's Federal Aviation Regulation Inspection by the Federal Aviation Administration Duality of Service Arrine cost por emplaned passenger (CPE) Total airline related frees / Total enplaned passengers at BWI Marshall Duality of Service Percent of BWI Marshall customers rating the airport "good" or "accellent" Percent of austromers giving as score of 4 or 5 (on a 5 point scale) for "Overall on key services Economic Prosperity Number of nonstop airline markets served Norstop flights are direct to destination without connections Economic Prosperity Non-airline revenue per emplaned passenger (RPE) Total non-airline revenue (ground transportation, parking, concessions, etc.) / Total emplaned passengers at BWI Marshall Seter R 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. System Preservation Dedger material placement capacity remaining for Harbor and Poplar Monoter existing capacity remaining at Harbor and Poplar Island dredged Community Vitality Arres of weedends or wildlife habitat created, restored or improved Comulative tally of arcage created, restored or improved Community Vitality Intermodal containers moved by rail through the Port Tracks intermodals containers that are moved by rail through the Port Economic Prosperity Port of Baltimore foreign cargo and MPA general cago tormage Tracks intermodals cortainers of tracks intermodals consent cagos: <td>Safety & Security</td> <td>BWI Marshall crime rate</td> <td>Crimes include all crimes against persons or property at BWI Marshall facilities</td>	Safety & Security	BWI Marshall crime rate	Crimes include all crimes against persons or property at BWI Marshall facilities
Duality of Service Percent of BWI Marshall customers rating the airport "good" or "excellent" Percent of customers giving a score of 4 or 5 (on a 5 paint scale) for "Overall Statisfaction" 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 Num-airline revenue per emplaned passenger (RPE) Total non-airline revenue (ground transportation, parking, concessions, etc.) / Total emplaned passengers at BWI Marshall Margland Port Rdministration (MPR) WPA 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 Habor and Poplar Island sites Monitors oxisting capacity remaining at Habor and Poplar Island dredged material placement sites Duality of Service Average truck turn-around time at Seagirt Marine Terminal Annount of time for a truck to enter the Terminal gate, drop off and/or receive a container, and exit the gate Duality of Service Average truck turn-around time at Seagirt Marine Terminal Comunities and exit the gate Community Vitality Intermodal containers moved by rail through the Port Tracks intermodal containers that are moved by rail through the Port. This is container, and exit the gate Economic Prosperity <td< td=""><td>Safety & Security</td><td></td><td></td></td<>	Safety & Security		
adailing of Services on key services 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 Margland Port Administration (MPR) WPA activities in support of a compliance (Pass / Fail) rating from the U.S. Setem Preservation Dredged material placement capacity remaining for Harbor and Poplar Duality 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 Economic Prosperity Area of wetlands or wildlife habitat created, restored or improved since 2000 Cumulative tally of acreage created, restored for wildlife habitat Economic Prosperity Intermodal containers moved by rail through the Port. Tracks intermodal containers that are moved by rail through the Port. Community Vitality Port of Baltimore foreign cargo and MPA general cargo tornage MPA general cargo includes foreign and donestic waterborne cargo. Port District, but does not include donestic cargo. Economic Prosperity Intermodal containers moved by rail through the Port. Distal increationer foreign cargo and MPA gene	Quality of Service	Airline cost per enplaned passenger (CPE)	Total airline-related fees / Total enplaned passengers at BWI Marshall
Economic Prosperity Non-airline revenue per explaned passenger (RPE) Total explaned passengers at BWI Marshall Maryland Port Ridministration (MPR) 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 material placement sites Datality of Service Average truck turn-around time at Seagirt Marine Teminal 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 since 2000 Cumulative tally of acreage created, restored or improved for wildlife habitat Economic Prosperity Intermodal containers moved by rail through the Port Trads intermodal containers that are moved by rail through the Port District, but does not include domestic waterborne cargo, Port of Bettimore foreign cargo includes foreign and domestic waterborne cargo. Port of Bettimore foreign cargo includes foreign and domestic waterborne cargo. Port of Bettimore foreign cargo includes foreign and domestic waterborne cargo. Port of Bettimore foreign cargo includes foreign and domestic waterborne cargo. Port of Bettimore foreign cargo includes foreign and domestic waterborne cargo. Port of Bettimore foreign cargo includes foreign and domestic waterbor	Quality of Service		
Control Prosperity Note-affinite evenue per elipticited passenger (N+E) Total explaned passengers at BWI Marshall Maryland Port Edministration (MPR) 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 Community Vitality Intermodal containers moved by rail through the Port Tracks intermodal containers that are moved by rail through the Port Dundakly via CSX or Norfolk Southern railroads Economic Prosperity Port of Baltimore foreign cargo and MPA general cargo tonnage MPA general cargo includes built and general cargo. Port of Baltimore foreign cargo includes built and general cargo MPA general cargo includes built and general cargo. Port of Baltimore foreign cargo includes built and general cargo within the Port District, but does not include domestic waterborne cargo. Port of Baltimore foreign cargo and MPA general cargo tonnage MPA general cargo includes built and general cargo within the Port District, but does not include domestic waterborne cargo. Port of Baltimore foreign cargo includes built and general cargo swithin the Port District, but does not include domestic gar	Economic Prosperity	Number of nonstop airline markets served	Nonstop flights are direct to destination without connections
Safety & Security MPA compliance with the Maititime Transportation Security Act of 2002 MPA activities in support of a compliance (Pass / Fail) rating from the U.S. 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 Duality 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 social containers may are moved by rail through the Port. This is containerized freight movement to/from MPA's terminals (particularly Seagirt 8 Dundalk) via CSX or Norfolk Southern railroads Economic Prosperity Port of Baltimore foreign cargo and MPA general cargo tonnage MPA general cargo includes foreign and domestic waterborme cargo; Port of Baltimore foreign cargo includes not include domestic cargo Economic Prosperity Revenue, operating expense and net income Total revenues compared to operating expense of MPA Economic Prosperity International cruises using the Port of Baltimore as Number of international cruises using the Port of Baltimore as	Economic Prosperity	Non-airline revenue per enplaned passenger (RPE)	
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 Duality 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 since 2000 Community Vitality Intermodal containers moved by rail through the Port Tracks intermodal containers that are moved by rail through the Port Economic Prosperity Port of Baltimore foreign cargo and MPA general cargo tonnage MPA general cargo includes foreign and domestic waterborme cargo; Port of Baltimore foreign cargo and MPA general cargo tonnage MPA general cargo includes foreign and domestic waterborme cargo; Port District, but does not include domestic cargo Economic Prosperity Revenue, operating expense and net income Total revenues compared to operating expense of MPA Economic Prosperity International cuises using the Port of Baltimore as Number of international cuises using the Port of Baltimore as	Maryland Port Administration (MPA)		
System Preservation Island sites material placement sites Duality 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 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 and MPA general cargo tonnage MPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo and MPA general cargo tonnage MPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo and MPA general cargo tonnage Economic Prosperity Revenue, operating expense and net income Total revenues compared to operating expense of MPA Economic Prosperity Intermational cruises using the Port of Baltimore as Number of international cruises using the Port of Baltimore as	Safety & Security	MPA compliance with the Maritime Transportation Security Act of 2002	
Auding of service Average funct turne at seaght function and the at seaght functis and the at seaght function and the at seaght function	System Preservation		
Environmental Stewardshipsince 2000Cumulative taily of addreage created, restored of improved for windine habitatCommunity VitalityIntermodal containers moved by rail through the PortTracks intermodal containers that are moved by rail through the Port. This is containerized freight movement to/from MPA's terminals (particularly Seagirt 8 Dundalk) via CSX or Norfolk Southern railroadsEconomic ProsperityPort of Baltimore foreign cargo and MPA general cargo tonnageMPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo and MPA general cargo tonnageMPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo and MPA general cargo tonnageMPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo include domestic cargoEconomic ProsperityRevenue, operating expense and net incomeTotal revenues compared to operating expense of MPAEconomic ProsperityIntermational cruises using the Port of BaltimoreNumber of international cruises using the Port of Baltimore as	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
Community VitalityIntermodal containers moved by rail through the Portcontainerized freight movement to/from MPA's terminals (particularly Seagirt 8 Dundalk) via CSX or Norfolk Southern railroadsEconomic ProsperityPort of Baltimore foreign cargo and MPA general cargo tonnageMPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo and MPA general cargo tonnageEconomic ProsperityRevenue, operating expense and net incomeTotal revenues compared to operating expense of MPAEconomic ProsperityInternational cruises using the Port of BaltimoreNumber of international cruises using the Port of Baltimore as	Environmental Stewardship		Cumulative tally of acreage created, restored or improved for wildlife habitat
Economic Prosperity Port of Baltimore foreign cargo and MPA general cargo tonnage of Baltimore foreign cargo includes bulk and general cargoes within the Port District, but does not include domestic cargo Economic Prosperity Revenue, operating expense and net income Total revenues compared to operating expense of MPA Economic Prosperity International cruises using the Port of Baltimore Number of international cruises using the Port of Baltimore as	Community Vitality	Intermodal containers moved by rail through the Port	containerized freight movement to/from MPA's terminals (particularly Seagirt 8
Economic Prosperity International cruises using the Port of Baltimore Number of international cruises using the Port of Baltimore as	Economic Prosperity	Port of Baltimore foreign cargo and MPA general cargo tonnage	of Baltimore foreign cargo includes bulk and general cargoes within the Port
Franchic Prospenty international cruises listo the Port of Ballinore	Economic Prosperity	Revenue, operating expense and net income	Total revenues compared to operating expense of MPA
	Economic Prosperity	International cruises using the Port of Baltimore	5

Appendix: List of Performance Measures by Agency

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
Maryland Transit Administration (MTA)		
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 the 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 • Number of park-and-ride spaces—MTA Operated • Transit Multipurpose	Transit lots are MTA owned; multipurpose lots are not MTA owned
Environmental Stewardship	Transportation Emissions Reduction Measures • MTA College Pass • MTA Commuter Choice Maryland Pass • Transit Store in Baltimore	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
Maryland Transportation Authority (MD	TA)	
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 numbe of toll collections
Motor Vehicle Administration (MVA)		
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
Duality 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
State Highway Administration (SHA)		
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 • Number of SHA park-and-ride spaces • Reduction in vehicle miles traveled through park-and-ride usage	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
MEASURES SHARED BY AGENCIES		
State Highway Administration (SHA) and Moto	r Vehicle Administration (MVA)	
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
State Highway Administration (SHA), Motor Ve	hicle Administration (MVA) and Maryland Transportation Authority (I	MDTA)
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)
State Highway Administration (SHA) and Mary	and Transportation Authority (MDTA)	
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	Annual average daily traffic / Number of through lanes

Appendix: List of Performance Measures by Goal

Safety & Security		13
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
System Preservatio	n	19
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
Quality of Service		23
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
Environmental Stev	vardship	33
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

Community Vitali	ty	41
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
Economic Prosper	ity	47
Economic Prosper TSO	ity Freight originating and terminating in Maryland	
-	-	48
TSO	Freight originating and terminating in Maryland	48 49
tso Mpa	Freight originating and terminating in Maryland Port of Baltimore foreign cargo and MPA general cargo tonnage	48 49 50
tso Mpa Mpa	Freight originating and terminating in Maryland Port of Baltimore foreign cargo and MPA general cargo tonnage Revenue operating expense and net income	48 49 50 50
tso Mpa Mpa Mpa	Freight originating and terminating in Maryland Port of Baltimore foreign cargo and MPA general cargo tonnage Revenue operating expense and net income International cruises using the Port of Baltimore	48 49 50 50 51
tso Mpa Mpa Mpa Maa	Freight originating and terminating in Maryland Port of Baltimore foreign cargo and MPA general cargo tonnage Revenue operating expense and net income International cruises using the Port of Baltimore Number of nonstop airline markets served	48 49 50 50 51 51

MDOT would like to offer special thanks and recognition for provision of photos:

Inside Cover, US 40 Bridge, Richard Wilke; Page 3, Barbara Allera-Bohlen; Page 15, and 16 upper right, 2014 Maryland State Highway Mobility Report; Page 39, Pamela Milby; Page 42, Abderdeen photos by Stacey Dahlstrom and David Dahlstrom

* 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.



7201 Corporate Center Drive Hanover, Maryland 21076













This document is prepared pursuant to Transportation Article Section 2–103.1 of the Annotated Code of Maryland. Additional copies are available by calling (410) 865-1277; Toll Free (888) 713-1414; or from the Internet at www.mdot.maryland.gov.

This document is available in alternative formats upon request.