Climate Action Status Report

(Environment Article § 2-1305(c))

December 2025

Maryland Department of Transportation

MARYLAND DEPARTMENT OF TRANSPORTATION

Climate Action Status Report 2025

OVERVIEW

Climate change poses a threat to the safety and sustainability of Maryland's people, communities, and infrastructure. This is why Maryland has long been a leader in addressing climate change by reducing greenhouse gas (GHG) emissions faster than other states while cleaning the air, improving public health, and growing the economy. This progress has been driven in part by policies and statutory climate goals developed to reduce climate pollution and to mitigate climate change impacts. The Maryland Department of Transportation (MDOT) coordinates on policy development and implementation as a member of the Maryland Commission on Climate Change (MCCC) which was established with advising the Governor and General Assembly "on ways to mitigate the causes of, prepare for, and adapt to the consequences of climate change."[1]

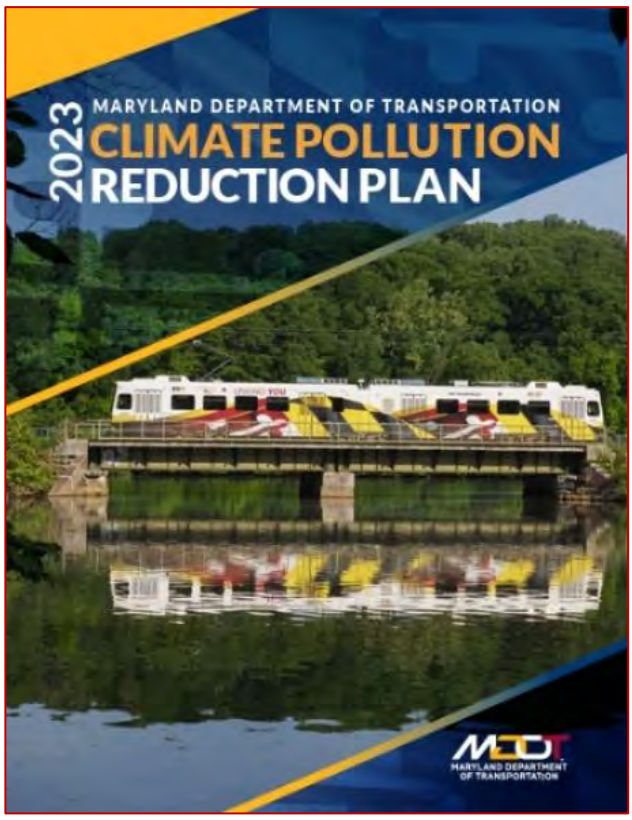
This Climate Action Status Report presents MDOT's annual review and analysis of strategies and investments to reduce climate pollution from, and boost resilience and adaptation of, the transportation sector. It covers the past State fiscal year (FY), fulfilling the mandate in the Climate Solutions Now Act of 2022 (CSNA) that certain State agencies, including MDOT, report annually on the status of programs that support the State's GHG reduction efforts or address climate change.

More recently, Governor Moore released the Maryland 2024 State Plan[2] which lays out how State agencies will deliver results for Marylanders on their mission to Leave No One Behind, including making Maryland the greenest state in the country. MDOT plays a significant role in Policy 7 – '*Advancing infrastructure to better connect all Marylanders to opportunities and each other*'. The Governor's priorities call on MDOT to ensure that Maryland leads on transit, reduces emissions from transportation, and builds a strong and equitable infrastructure that benefits all Marylanders. The State Plan also commits to specific objectives which MDOT can help deliver, such as inclusive and reliable public transit and transportation systems, infrastructure that bolsters inclusive economic growth, decarbonization of Maryland's transportation sector by expanding infrastructure for electric vehicles (EVs), and reductions in vehicle miles traveled (VMT) through transportation demand management (TDM). The State Plan also underscores the importance of promoting transit-oriented development (TOD) to leverage infrastructure and bolster economic growth.

To comply with the CSNA and in alignment with the State Plan, MDOT's annual Climate Action Status Reports review recent, ongoing, and planned activities that reduce GHG emissions across three different tiers of implementation—policy, programs, and data. The Status Report also summarizes progress in the implementation of MDOT's 2023 Climate Pollution Reduction Plan (CPRP), a guide to reducing GHG emissions statewide by 60 percent from 2006 levels by 2031 and achieving a net-zero

[1] MD Environment Code § 2-1301 (2024)
[2] https://governor.maryland.gov/priorities/Documents/2024%20State%20Plan.pdf

carbon emissions goal by 2045 as required by the CSNA. The previous years' Status Reports and CPRP can be found at: Climate Change.[3]



MDOT 2023 CPRP

The MDOT CPRP lays out transportation-specific strategies, both funded and unfunded, aimed at reducing emissions. These strategies are divided into key approaches, including adopting transportation technologies, reducing VMT, improving transportation system efficiency, managing demand, mitigating congestion, implementing opportunities for clean energy use, and ensuring that transportation infrastructure is resilient to impacts of climate change. MDOT's CPRP complements the economy-wide CPRP developed by the Maryland Department of the Environment's (MDE), also developed in 2023. MDE's CPRP evaluated the potential of carbon reduction strategies and provided a specific framework for attaining the 60 percent GHG reduction goal across all sectors, including transportation, by 2031.

In addition to the CPRP, this Climate Action Status Report draws from MDOT's planning, performance, and budgetary/financial reporting systems including the 2050 Maryland Transportation Plan (MTP), also known as "The Playbook", which guides transportation policies and investment strategies to provide safe, reliable, accessible, equitable, and sustainable transportation options for Maryland. The MTP includes goals and guiding principles to mitigate and reduce GHG emissions from the transportation system, such as a 20 percent reduction in VMT per capita from 2019 levels by 2050, a 40 percent reduction in on-road transportation sector GHG emissions by 2031 (from 2006 levels), and movement towards net-zero emissions by 2045.

There are also other annual reporting and programming efforts that provide information and data that support the completion of the Climate Change Status Report. The Consolidated Transportation Program (CTP)[4] is Maryland's six-year capital budget for transportation projects. The CTP contains projects and programs across the Department, and these are analyzed as part of this report to determine the proportion of funding dedicated to climate change mitigation.

MDOT's Annual Attainment Report (AR) on Transportation System Performance tracks MDOT's progress towards meeting the goals and objectives of the MTP and identifies successes, challenges, and strategies for improving the transportation services delivered to Maryland residents. Given the

[3] https://www.mdot.maryland.gov/tso/pages/Index.aspx?PageId=169
[4] https://www.mdot.maryland.gov/tso/pages/Index.aspx?PageId=27

overlap in the purpose and scope of these documents, much of the information included here in the Climate Change Status Report is derived from the Annual AR, which can be found at: www.mdot.maryland.gov/AR.

MDOT's six transportation modal administrations provide inputs for MDOT's CPRP – the Maryland Aviation Administration (MAA), the Maryland Port Administration (MPA), the Motor Vehicle Administration (MVA), the State Highway Administration (SHA), the Maryland Transit Administration (MTA), The Secretary's Office (TSO), – and two authorities that are part of MDOT, including the Maryland Transportation Authority (MDTA) and the Washington Metropolitan Area Transit Authority (WMATA). Direct input from staff across MDOT's modal administrations and authorities informs the insights from these planning, performance, and budgetary reporting systems. This report provides a comprehensive overview of projects, programs, and initiatives from FY 2025, along with updates on progress toward strategies, policies, and potential new initiatives outlined in the 2023 MDOT CPRP.

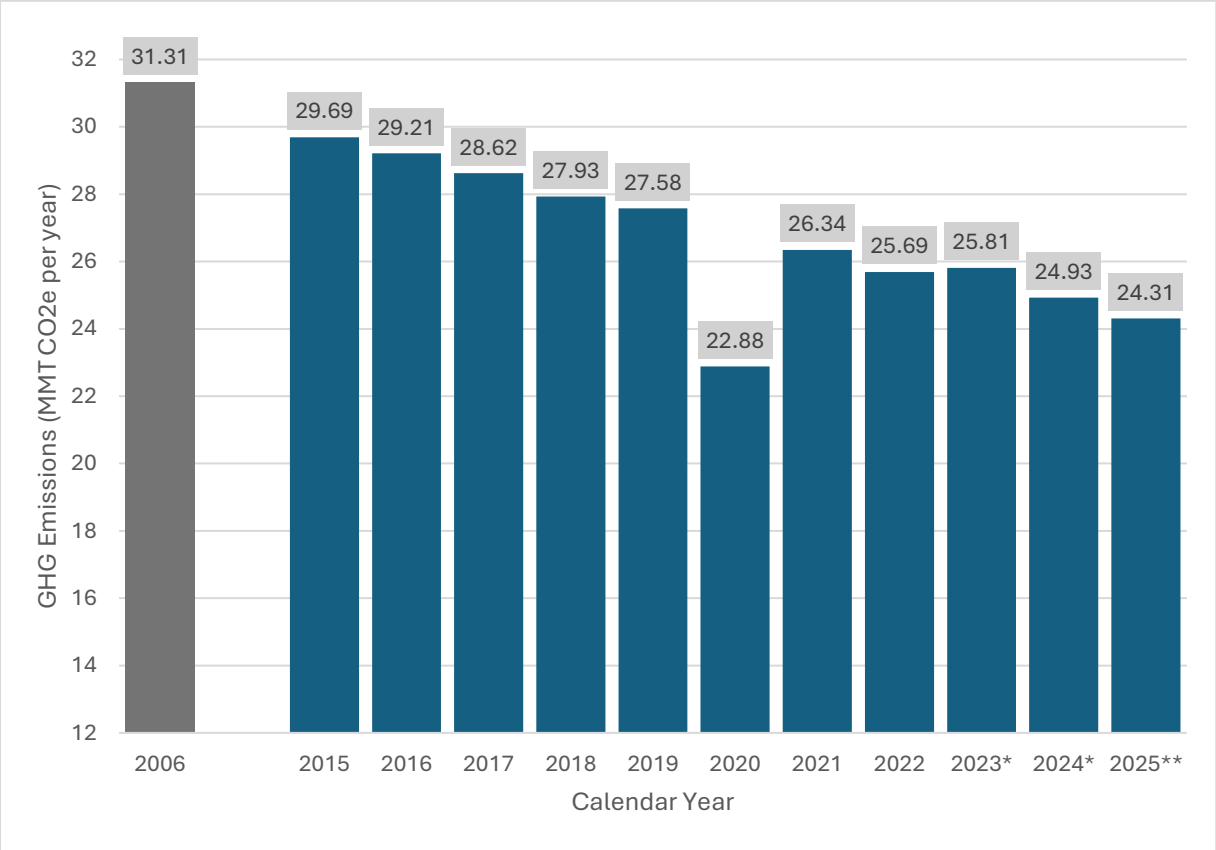
MTA Zero-emission Bus Charging

STATE OF GHG EMISSIONS

The CSNA established statewide targets to reduce GHG emissions by 60 percent from 2006 levels by 2031 and achieve a net-zero carbon emissions goal by 2045. Since these targets are economy-wide, there is no specific GHG reduction target for the transportation sector. In the MDOT CPRP released in 2023, an analysis of current strategies in progress found that attaining a target for on-road emissions of 17.85 million metric tons of carbon dioxide equivalent (MMT CO2e) by 2031 is feasible. This represents nearly 42 percent reduction below the 2006 baseline. With additional reductions from potential new initiatives, GHG emissions could decrease to 15.64 MMT CO2e per year, a 49 percent reduction below the 2006 baseline.

According to most recent estimates, total GHG emissions from on-road sources are 24.93 MMT CO2e (Figure 1), which is 20.4 percent lower than the 2006 baseline. This estimate for Calendar Year (CY) 2024 was developed using MOVES5, the latest version of the United States Environmental Protection Agency (U.S. EPA) Motor Vehicle Emission Simulator (MOVES). The 2023 and 2024 estimates have been revised from the estimates published last year in the Climate Action Status Report due to the transition to this latest version of MOVES.

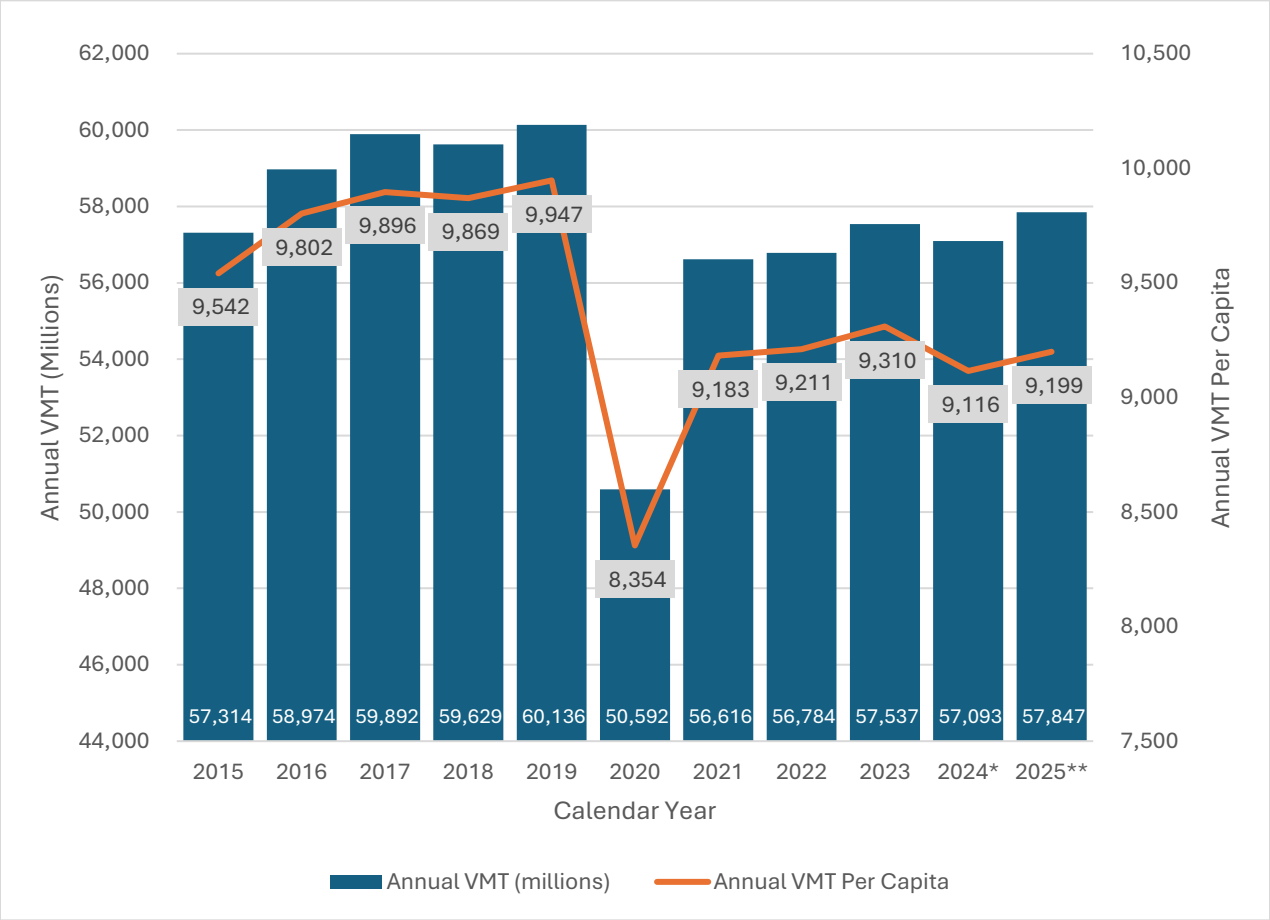
Figure 1 Total GHG Emissions from On-Road Sources (CY)



**2023 and 2024 data have been revised from estimate to actual*
***2025 data is estimated*

The inventory analysis for GHG emissions from on-road transportation is primarily a product of the following three trends: VMT, the fuel efficiency of the fleet, and the GHG intensity of energy used in vehicles. Subsequently, these other metrics can provide a greater understanding of the underlying trends of the reduction in GHG emissions. Per capita and total VMT have remained relatively flat in the years since 2020 when it plummeted during the height of the COVID-19 pandemic (Figure 2). These values in recent years remain below the peaks of total and per capita VMT observed in 2019. For example, VMT per capita in 2024 was 8.4 percent lower than the VMT per capita in 2019, which is closer to the MTP goal of 10 percent reduction in per capita VMT by 2030. Truck traffic specifically remains lower than the 2021 and 2022 timeframe, mirroring national freight trends and reflecting market conditions, economic uncertainty, supply change adjustments, and updates to truck classification and reporting systems.

Figure 2 Annual Total VMT and VMT Per Capita (CY)

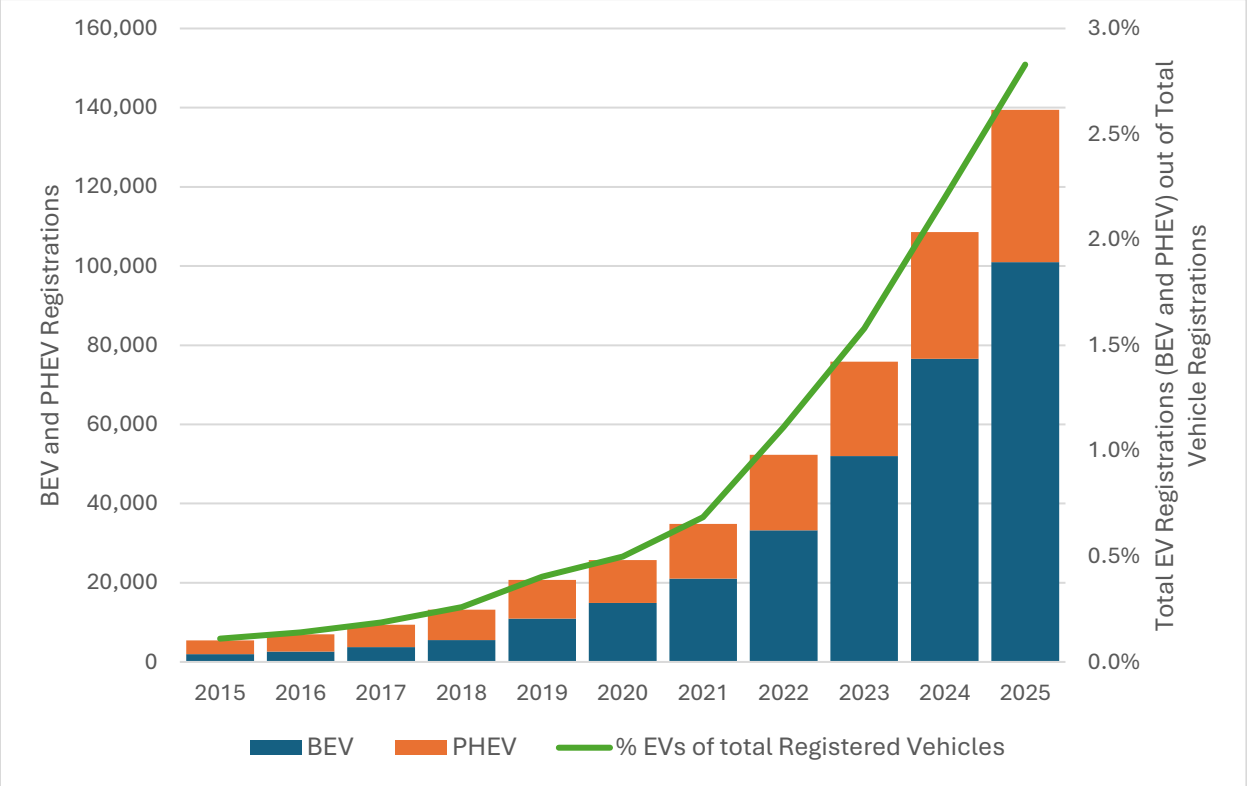


**2024 data has been revised from estimate to actual*
***2025 data is estimated*

In addition to decreased VMT from pre-pandemic levels, fuel efficiency of on-road vehicles continues to improve as older vehicles are replaced with newer vehicles that meet the 2022 and 2024 federal fuel economy standards. The transition to EVs in Maryland also contributes to the overall efficiency of the on-road fleet. As of June 30, 2025, 30,876 more EVs were registered compared to the same

date one year prior, bringing the total number of EVs registered in Maryland to 139,460, an increase of 28 percent from June 30, 2024. EVs now make up approximately 2.8 percent of all vehicles registered in the State, up from 0.7 percent in June 2021 (Figure 3). For all calculations referenced here, EVs include both battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). The estimated associated reduction of emissions with these 30,876 EV were newly registered in FY 2025 is 0.14 MMT CO2e.

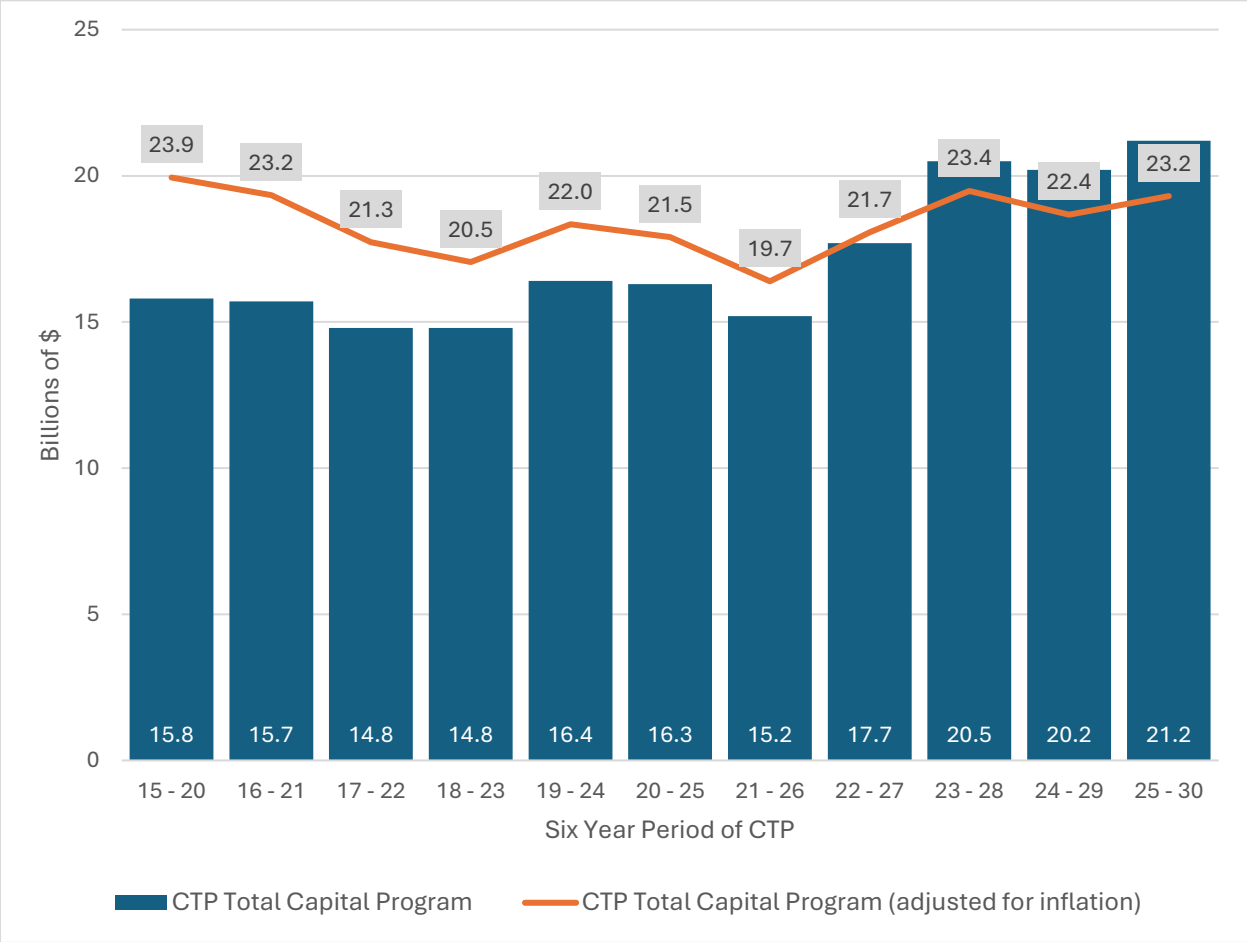
Figure 3 BEV and PHEV Registered Vehicles as of June 30 (FY)



MDOT'S CLIMATE CHANGE COMMITMENT

To understand and demonstrate the overall commitment to reducing GHG emissions and minimizing climate change impacts, MDOT continues to track the total share of CTP funding dedicated to projects that will help Maryland meet its climate change goals. This process begins with an understanding of recent changes to the total capital program budget. The current FY 2025 – FY 2030 CTP total budget is $21.2 billion. When indexed to inflation, this value is $23.2 billion in present-day 2025 dollars, which is lower than the budget of some previous real funding levels (Figure 4). The next FY 2026 – FY 2031 CTP budget is currently under development.

Figure 4 MDOT Total Capital Program Level ($Billion) (FY)



**adjusted to 2025 dollars*

Within the FY 2025 – FY 2030 CTP, 64 percent (approximately $10.13 billion) of Maryland's major capital program are investments that will potentially reduce GHG emissions through 2030 and beyond. Spending on minor capital programs, such as system preservation, maintenance, and other activities, which are essential to maintain the State's transportation system to meet its performance goals, are currently not taken into consideration for the GHG analysis.

The projects that are considered GHG-reducing are classified into four pillars of GHG emissions reductions in the transportation sector, as shown in Figure 5. In the FY 2025 – FY 2030 CTP, the majority of GHG reducing funding is towards projects that reduce emissions via VMT reduction (Figure 6) through transportation demand management. This is due to the investment in transit and pedestrian and bicycle infrastructure, followed by congestion mitigation strategies, which improve travel reliability and increased efficiency, and transportation technology strategies that lower fossil fuel emissions per mile traveled.

A total of $10.13 billion worth of major projects, or 64 percent of all funding for major projects, contribute to reducing on-road transportation emissions in Maryland.

Figure 5 GHG Emissions Reductions Pathways

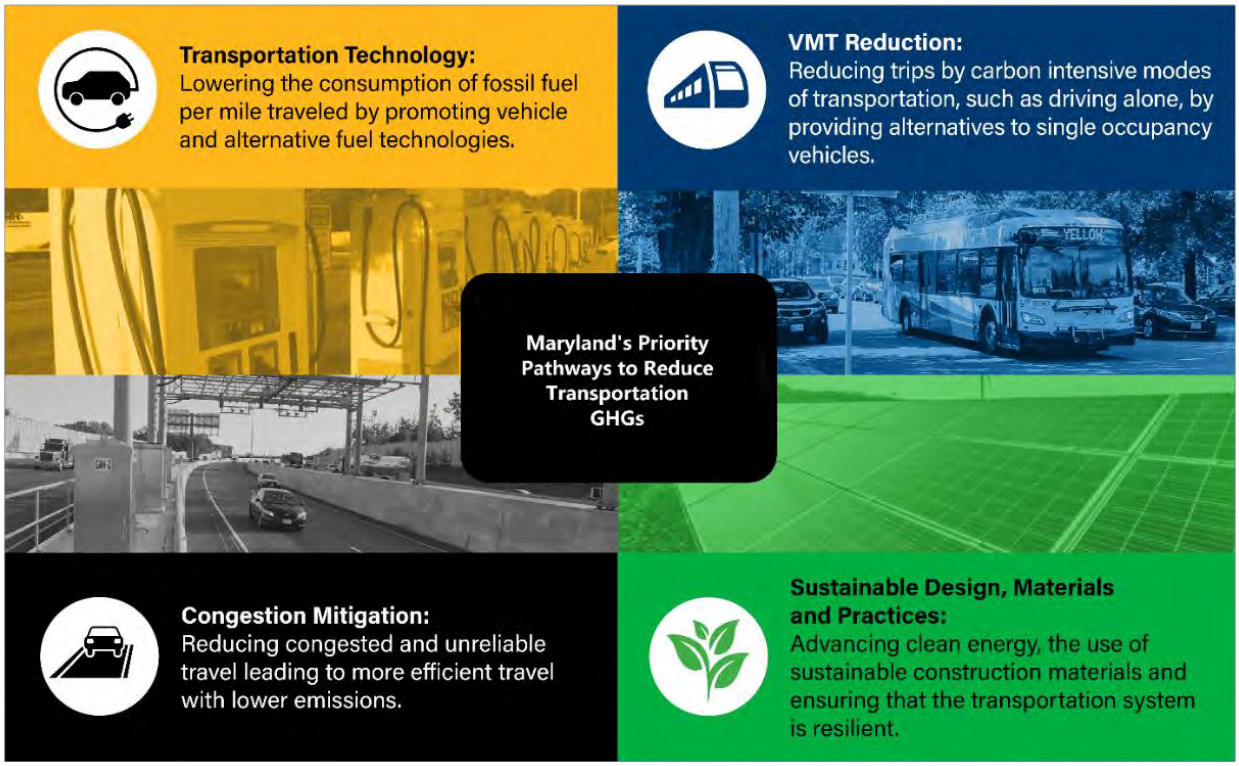
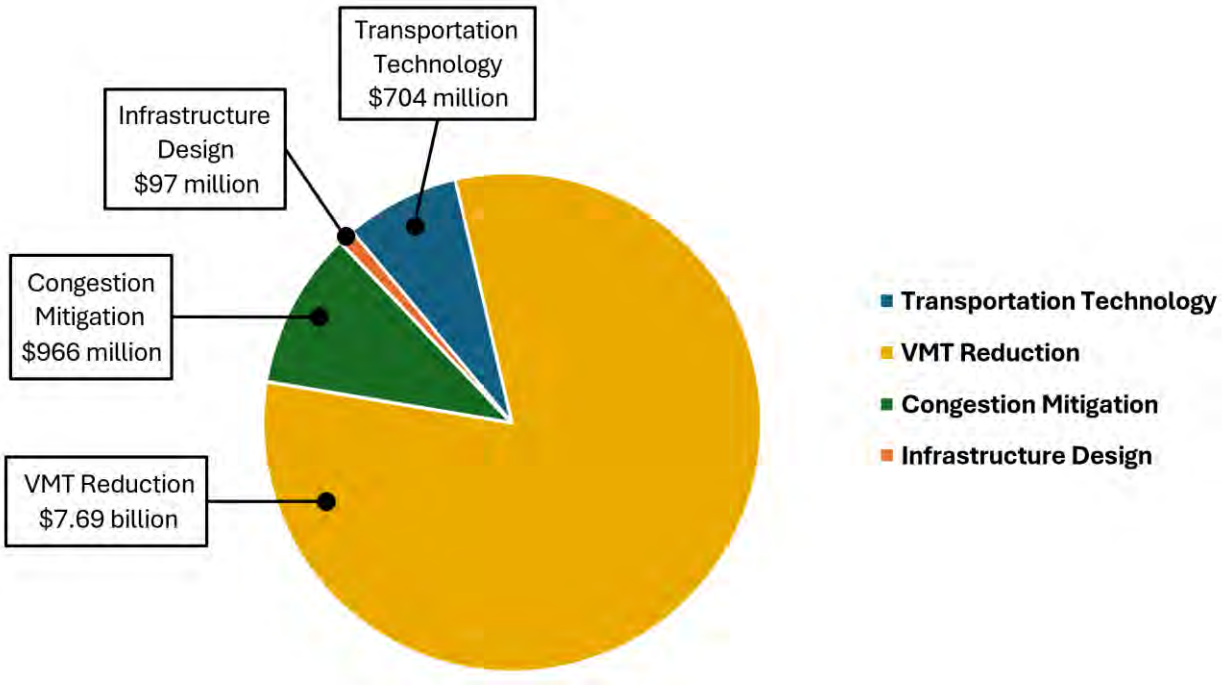


Figure 6 MDOT CTP Emissions-Reducing Projects by Type



In addition to the four emissions reductions pathways, climate resilience and adaptations strategies are also summarized in the "Resilience and Adaptation" section. This section describes the challenges and opportunities associated with climate resilience and adaptation for MDOT and outlines resilience strategies for FY 2026.

TRANSPORTATION TECHNOLOGY

MDOT continues its focus towards the adoption of low-carbon and GHG emissions reduction technologies for vehicle infrastructure by leveraging National Electric Vehicle Infrastructure (NEVI) Formula and Carbon Reduction Program (CRP) funds. Through the NEVI Program, MDOT will coordinate with vendors who will install up to 130 new charging ports at 22 sites in 15 counties across the State in its first round, which will be operational by Fall 2026. In addition, MDOT accepted proposals to fill the remaining charging gaps along Maryland's EV corridors. Proposals were due by August 30, 2025. Table 1 shows the publicly accessible Level 2 and Direct Current Fast Charging (DCFC) ports available per 1,000 residents, shown cumulatively over the past three State fiscal years.

MDOT will coordinate with vendors who will install 130 new charging ports at 22 sites in 15 counties across the State in its first round of NEVI Program.

Construction of new charging ports under Round 1 NEVI program

MDOT is also investing in the electrification of the agency fleet and the deployment of reliable fleet charging infrastructure. Over 1.1 million pounds of GHG emissions reduction is anticipated over the lifecycle of each zero-emission bus that replaces a diesel bus, based on lifecycle emissions modeling conducted by MTA. For the electrification of its fleet, MPA received CRP funding for the purchase of 11 light-duty EVs. Overall, 45 light-duty EVs are in operation at all MDOT Modes, supported by fleet charging capacity at over 10 MDOT sites.

Furthermore, to support increased electrification across MDOT, SHA has also received $1.36 million in CRP funding to develop a pilot program for the consideration of 14 SHA-owned Park & Ride sites for solar photovoltaic installation. See Appendix A for the full list of accomplishments related to transportation technology.

Table 1 Level 2 And DCFC Ports

	FY 2023	FY 2024	FY 2025*
Level 2 Charging Ports	3,037	3,753	3,961
DCFC Ports	782	995	1,209
Total Charging Ports	3,819	4,748	5,170
Charging Ports Per Thousand Residents	0.62	0.77	0.84

** FY 2025 data is as of July 31, 2025*

Challenges and Opportunities

To accelerate adoption and ensure Maryland continues to be a national leader in EV deployment, MDOT will continue to support incentives for EVs and support charging infrastructure deployment. Changing federal funding mechanisms and policy priorities may pose significant challenges for MDOT on the effective and timely deployment of EVs and EV charging infrastructure. Nonetheless, MDOT will support charging accessibility for all residents by ensuring that infrastructure is available to those who live in rural and urban environments, as well as disadvantaged communities, multi-unit dwellings, and at workplace locations throughout the State. In coordination with other Maryland agencies, MDOT is currently developing a Zero Emission Vehicle Infrastructure Plan (ZEVIP) that will include Zero Emission Vehicle (ZEV) adoption projections and corresponding infrastructure needs. ZEVIP will also outline opportunities and barriers associated with ZEV adoption and charging infrastructure installation, including regulatory and financial uncertainties.

MDOT collaborates and engages with utility providers and other stakeholders to identify required changes to the utility planning and project development for large-scale implementation of charging infrastructure. These efforts aim to inform all involved stakeholders about potential opportunities to streamline project delivery, optimize deployment costs, and enhance grid capacity. Additionally, the findings may help guide future utility policy decisions as public ZEV fleets expand across Maryland.

Launch of MTA's new zero-emission buses with Governor Wes Moore

Strategies for FY 2026

Federal Funding & Multi-State Collaboration

- MDOT will continue to seek out opportunities to advance EV charging infrastructure deployment through federal discretionary grants and federal formula funding.
- MDOT, in collaboration with other agencies in other states, will continue implementing the grant funds awarded through the Climate Pollution Reduction Grant (CPRG) Program for Clean Corridor Coalition project along I-95 corridor and Charging and Fueling Infrastructure (CFI) Grant to deploy alternative fueling infrastructure along the I-81 and I-78 corridors.
- MDOT will continue to deploy federal funding allocated under the NEVI Program. This includes building out all chargers funded under Round 1, securing final contracts and beginning construction for Round 2 funding, and kicking off Round 3 funding to complete corridor charging and begin community charger deployment.

MDOT Electrification Strategies

- All MDOT modes will continue collaborating with Department of Budget and Management (DBM) and Department of General Services (DGS) to leverage their assistance and resources related to fleet vehicle electrification and fleet charging infrastructure, respectively.
- MDOT will continue working internally along with other state agencies to transparently present data and consumer information on EVs and EV charging on publicly accessible websites including on MarylandEV.org, the MDOT EV Dashboard,[5] and the MVA Data Dashboard.[6]
- MDOT has initiated a task focused on e-micromobility to promote consistency across shared fleets and to educate users and operators on safe maintenance and usage practices. This foundational effort represents a first step toward integrating e-micromobility into MDOT's broader transportation plans and programs.

MTA EV Deployment Strategies

- MTA will expand its internal working groups on zero-emission vehicle technology to share best practices and other resources (such as cooperative contracting) that can be shared between MDOT modes regarding bus fleets.
- MTA continues to coordinate with Original Equipment Manufacturers (OEMs) and infrastructure and software vendors to improve the operational performance of the bus charging equipment, including the integration of a Charge Management System to optimize the amount of power drawn from chargers.
- MTA continues to identify opportunities to decarbonize the transit fleet without impacting operational reliability during the ZEV transition, including the procurement of hybrid buses to replace diesel vehicles and the configuration of such vehicles to operate in "EV-only mode" in priority areas and low speed operations.

[5] https://experience.arcgis.com/experience/d8d908d9e62f4054b14ec8f6cbb5392b/
[6] https://app.powerbigov.us/view?r=eyJrIjoiOTNkYjdkMzctNWVmZC00ZTM0LThhNjAtNTU4YWU3ODQzOGMyIiwidCI6ImIzOGNkMjdjLTU3Y2EtNDU5Ny1iZTI4LTIyZGY0M2RkNDdmMSJ9

VMT REDUCTION

Reducing VMT, especially in relation to population growth, is essential for lowering GHG emissions and requires a layered strategy that combines long-term land use planning, infrastructure investment, and digital innovation. MDOT programs and initiatives aim to reduce VMT and single-occupancy trips by investing in and supporting TOD, transit investments, bicycle and pedestrian infrastructure, teleworking services, and other TDM strategies like flexible work schedules. Each of the strategies plays a distinct but complementary role in reducing VMT, and their effectiveness is best understood in an integrated framework.

In 2025, MDOT began implementing the 2024 Complete Streets policy, which requires all projects in the MDOT right-of-way to consider multimodal accommodations and is expected to result in better connect and safer networks for those outside of motor vehicles.

TOD is a long-term land use strategy that creates dense, walkable, mixed-use communities centered around public transit and hence helps in avoiding and reducing the need for automobile trips and encourages walking, biking, and transit use. Though slow to deliver due to planning and construction timelines, it yields substantial long-term results in reducing VMT. MDOT and WMATA continue to drive development of inclusive and thriving communities through TOD programs. MDOT launched a $5 million grant and loan program for localities and advanced joint development activities at Reisterstown Plaza, State Center, Rogers Avenue Metro Station, and Bowie State and Odenton MARC Station. Additionally, MDOT launched a TOD Capital Grant program, recently awarding $1.25 million to Anne Arundel County, Montgomery County, and Baltimore City. WMATA also approved three new joint development agreements at Takoma, Twinbrook, and Landover to add over 1,100 housing units around rail stations.

Transit investments, such as constructing a new rail line, are capital-intensive and take considerable lead time to plan and implement. However, when combined with TOD, they create high-capacity corridors that support mode shift away from driving. MDOT continues to emphasize improving service quality and reliability, better aligning transit services with demand, and enhancing the dissemination of transit information to customers. In FY 2025, MTA launched several initiatives to improve and expand transit services across the State. These include the BMORE Bus Study, the Maryland Area Rail Commuter (MARC) Growth and Transformation Plan, and the Planning and Environment Linkages (PEL) Study to advance the Southern Maryland Rapid Transit Project. Additionally, the Purple Line project reached several key milestones, including continued major construction at all 21 stations and completion of more than 50 percent of the track, bringing overall project completion to approximately 75–80 percent. Finally, MTA's Light Rail Modernization Program is an investment in light rail vehicles, signal systems, stations, track, and maintenance facilities for Baltimore's Central Light Rail Line to deliver more reliable, faster, safer, and more accessible service for Light Rail riders.

More than 80 percent of the Purple Line, the 16-mile light rail line from New Carrollton to Bethesda, is now complete.

Dynamic testing of light rail vehicles for Purple Line

In comparison to TOD and transit investments, bicycle and pedestrian infrastructure improvements are relatively low-cost and quick to implement. While these improvements may only shift a small number of trips, their cumulative effect, when integrated with transit and TOD, can be significant. The newly released draft CTP for FY 2026 – FY 2031 will fund more than $537 million in active transportation projects over this six-year period, the highest investment on record. This record investment is largely due to the new Complete Streets policy. One example program under this umbrella is the Pedestrian Safety Action Plan (PSAP). MDOT has initiated PSAP for 13 total corridors statewide which are at various stages of project development. One of those projects, MD 650 (New Hampshire Avenue), from University Boulevard to Powder Mill Road in Prince George's and Montgomery counties, has reached the construction phase as of 2025. The MD 650 PSAP project is a $15 million investment in pedestrian, bicycle, and multimodal improvements. In addition, in September 2025, MDOT released the Maryland State Transportation Trails Strategic Plan which lays out how to build shared facilities for people walking and biking to better connect these networks. The MDOT Complete Streets Program also includes other priority multimodal and safety projects across Maryland, such as Vulnerable Road User projects identified in the Maryland Strategic Highway Safety Plan's Vulnerable Road User Safety Assessment. These projects will improve safety for all roadway users, including motor vehicles, pedestrians, and bicyclists.

For bicyclists, improvement is measured by the level of traffic stress (LTS) which measures how 'bikeable' roadways are for various cycling audiences. LTS 1 is designated for road segments with strong separation from traffic, making these segments applicable to almost everyone. LTS 4, towards the other end of the spectrum, involves interaction or close proximity to high-speed traffic and LTS 5 is designated for roadways where bicycle access is prohibited. Table 2 shows the most recent data on LTS. The LTS model continues to be refined; this data more clearly identifies LTS on State-owned roadways, whereas previous reports included a small number of roadways that are maintained by other agencies but are now filtered out of the current data. Pedestrians also require accessible, low-stress, comfortable, and direct routes to destinations before they replace a car trip. The Complete Streets policy encourages the collection of state and local data for sidewalks to establish similar rating systems to measure performance for pedestrians. This information could be used to assess current and future use and shed light on the potential for mode shift.

Table 2 Level of Traffic Stress for Biking

LTS Score	Target Audience	Bicycle Facility Types	FY 2025 Centerline Mileage
1	Almost everyone	Protected bikeways, side paths	115.8
2	Interested, but concerned	Bike lanes, bike boulevards	387.8
3	Enthused and confident	Bike lanes, shared lanes, shoulders	520.2
4	Strong and fearless	No bike facility or on arterial roadways	3454.0
5	Bike access prohibited	Bicycle access is prohibited by managing roadway agency	1475.9

Technology-enabled services, such as teleworking or teleservices, offer direct VMT reductions without major capital outlays, by completely eliminating trips. MVA has implemented alternative service delivery mechanisms, including web-based transactions, to reduce the number of in-person visits required at their locations and One-Stop-Shop government services to reduce VMT. Other strategies include TDM programs, such as Commuter Choice Maryland and Ride Together Rewards program, which reduce trips through telework and compressed schedules, promote transit, ridesharing, and active commuting; and connect employers and commuters to transportation options and incentives.

Other strategies like TDM programs, such as carpooling, vanpooling, and employer-based commute programs, also help in reducing the VMT. MDOT's programs such as Commuter Choice Maryland and Ride Together Rewards program, reduce trips through telework and compressed schedules, promote transit, ridesharing, and active commuting; and connect employers and commuters to transportation options and incentives. In FY 2025, MDOT also launched the Ride Together Rewards Vanpool and Carpool incentive programs.

Table 3 shows the change in commute mode share over the years. The portion of Marylanders driving alone has continued to decline with a low of 66.3% while working at home continues to rise with a high of 17.2 percent, according to 2023 ACS five-year estimates. Transit mode share has seen a consistent decline since the COVID-19 pandemic from 7.4 percent in 2020 to 4.9 percent in 2023.

Table 3 Commute Mode Share

Mode	2016	2017	2018	2019	2020	2021	2022	2023*	2024
Drive Alone	73.7%	73.8%	73.9%	73.9	72.1%	69.8%	68.2%	66.3%	66.4%
Carpool	9.3%	9.1%	9.1%	8.9%	8.6%	8.2%	7.8%	7.7%	8.7%
Transit	8.9%	8.8%	8.6%	8.4%	7.4%	6.4%	5.5%	4.9%	5.0%
Work at Home	4.4%	4.5%	4.7%	5.0%	8.1%	11.9%	14.7%	17.2%	15.6%
Walk	2.4%	2.4%	2.3%	2.3%	2.1%	2.0%	0.3%	2.0%	2.3%
Other**	1.0%	1.0%	1.2%	1.2%	1.3%	1.5%	1.9%	1.7%	1.7%
Bicycle	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	1.6%	0.3%	0.3%

** ACS 5-year estimates (CY). 2024 uses ACS 1-year tables and should not be compared with other ACS data (5-year). All 2023 data have been updated from ACS one-year estimates in the last report to ACS 5-year estimates.*
*** Other includes motorcycle, taxicab, and "other" in the ACS data.*

See Appendix A for the full list of accomplishments related to VMT reduction.

Construction began on Maryland's first PSAP project on MD 650 in July 2025

Challenges and Opportunities

A significant challenge to reducing VMT is that MDOT does not have direct control over individual travel choices. To encourage an overall reduction in VMT across the state, MDOT actively engages in and supports outreach and education to promote available alternatives to SOV use. Efforts to expand transit ridership include the development of the Red and Purple Lines, as well as enhancements and expansions to the existing transit systems. Additionally, MDOT collaborates closely with communities and partners through the Commuter Choice and Ride Together Rewards program to educate the public on travel options that reduce reliance on SOVs and offer incentives to encourage more efficient commuting choices. MDOT also collaborates on a statewide micromobility working group (e-bike, e-scooters, and other devices used to assist mobility and increase short trip opportunities) to provide a model permit framework and consistent safety guidance that can be distributed for shared fleets as well as personal device users.

Another challenge that MDOT faces in expanding transportation choices is ensuring an appropriate budget for maintenance of active transportation facilities. To realize mode shift away from SOVs, Maryland must budget and plan for life-cycle costs, clarify ownership of operations and maintenance of these facilities, and fund routine maintenance as part of project delivery, which is consistent with MDOT's Complete Streets policy that elevates maintenance during planning.

Strategies for FY 2026

TOD and Transit Initiatives

- MDOT expects to reach several major milestones in its TOD strategies during FY 2026, including completing several key sites and development studies. MDOT plans to select a Joint Development partner for the Odenton site (funded by the MDOT TOD Capital Grant and Revolving Loan Fund) and Bowie State MARC site (part of 2024 MARC Penn Line TOD Strategy).
- MTA will continue to make progress on the construction of all 21 stations of the Purple Line and is receiving all 28 light rail vehicles on-site this year. Milestones expected in 2026 include the completion of the Capital Crescent Trail extension, continuation of Dynamic Track Testing, and the installation of all overhead power catenaries.
- In FY 2026, WMATA is increasing peak service on the Silver and Red Lines to address crowding, expanding Metrorail system hours on weekends, and will extend every other Yellow Line train to Greenbelt.

Complete Streets Initiatives

- Following the internal updates to guiding documents in 2025, MDOT will fully implement the new Complete Streets policy and apply to all projects in the MDOT right-of-way, requiring projects to obtain a waiver if multimodal facilities are not included.
- In FY 2026, MDOT SHA launched a quick build program to encourage a faster implementation of multi-modal accommodations and to test Complete Streets designs in different contexts.
- To evaluate the effectiveness of Complete Streets projects in accommodating multimodal trips, SHA will implement a data collection process both before and after project

implementation. This process will collect multimodal count data, including bicycles, pedestrians, and other non-motorized users.

Active Transportation Strategies

- MDOT will continue to advance the planning and design projects from the first and second rounds of the PSAP corridor projects.
- In late 2025, MDOT will host a Maintenance of Active Transportation Facilities Peer Exchange and Roundtable to build on the state's 2024 Complete Streets policy and 2025 Complete Streets Implementation Plan. The two-day event, sponsored by USDOT's Transportation Capacity Building Program focuses on identifying potential funding solutions and reliable maintenance strategies to meet the state's goal of reducing barriers to implementation of active transportation facilities for all roadway projects. The outcome will be short- and medium-term strategies for MDOT to investigate as it pursues the longer-term goals to improve maintenance capacity for local jurisdictions and for the state in line with the Complete Streets policy.
- MDOT is working to address new micromobility on our roadways, including e-bikes and e-scooters, to improve understanding of the roles and responsibilities of micromobility riders and non-riders sharing the road. MDOT has initiated a working group of jurisdictions with shared permitted fleets to develop common contractual standards and to leverage micromobility as an opportunity for safety education. In addition, MDOT, through the MVA, is also developing safety guidance for local enforcement and for e-device retailers in regard to maintenance and fire safety. MDOT anticipates launching this in 2026.
- Currently, MDOT has access to 60 counters installed by local jurisdictions using Bikeways Network Program grants. MDOT will advance a Multimodal Count Pilot Program which identifies 12 active transportation count locations which MDOT has access to, representing a range of facility types, geographic locations, and modes.

TDM and Other Strategies

- MDOT will continue to promote transportation demand management strategies through the Commuter Choice Maryland program, working with local, State and regional partners, employers and commuters to help them learn about alternatives to driving alone. Further, MDOT is looking to promote transit incentives in FY 2026.
- MVA will continue to promote materials encouraging Marylanders to create a myMVA account and participate in alternative service delivery with the tagline that more than 60 transactions can be done online. MVA is specifically pushing to increase online license renewals. One strategy is sending emails to those who are one year out from renewals and encouraging them to sign up or log in to see if they can renew online and skip the visit.

CONGESTION MITIGATION

Traffic congestion and idling, or operating vehicles at low speed, can increase GHG emissions because of additional fuel use and reduced engine efficiency at low speeds. Reducing congestion not only reduces emissions, but also helps improve air quality, travel reliability, and quality of life for Marylanders. MDOT's commitment to reducing congestion includes initiatives such as Coordinated Highways Action Response Team (CHART), Key Bridge reconstruction, and construction of express toll lanes. CHART focuses on optimizing the transportation system by improving incident response times, providing traveler information (Maryland 511), and 24/7 traffic monitoring and management to improve efficiency. SHA's CHART program has developed into a multi-jurisdictional and multi-disciplinary program that expands throughout the entire state of Maryland. During CY 2024, CHART responded to a total of 65,710 incidents and disabled vehicle assists. The results of these efforts include reductions of more than 7 million gallons of fuel and over 2 million hours of truck delay, in addition to the reduction of emissions (more than 67,000 MT CO2). In 2024, the reduction in emissions resulted in total savings of 43.06 million dollars. Thus, CHART operations in 2024 generated a total net benefit of $2.23 billion (Table 4). Most benefits were produced from the reduction in delay due to CHART's efficient incident response and management, especially along major corridors, which are the primary contributors to traffic congestion in Maryland. See Appendix A for the full list of accomplishments related to congestion mitigation.

CHART operations responded to a total of 65,710 incidents in 2024 and generated a total net benefit of $2.23 billion.

Table 4 CY 2024 CHART Benefits

Truck Delay (vehicle hours reduction)	2 million hours
Fuel Consumption (gallons)	7 million
Emission (MT CO2)	67,000
TOTAL COST SAVINGS ($)	2.233 billion

Challenges and Opportunities

Maryland's transportation system faces increasing demands, leading to reliability challenges and significant delays from even relatively minor disruptions. To overcome this, MDOT is leveraging technology through Intelligent Transportation Systems (ITS), such as CHART, to improve efficiency and reduce congestion. Harnessing technology through the deployment of systems along roadways and in vehicles to reduce delays, clearing traffic incidents efficiently, and providing accurate and real-time traveler information continue to help transportation agencies and system users make better decisions to better manage or avoid congestion.

Strategies for FY 2026

Infrastructure Improvement Strategies

- SHA is set to invest $143.2 million over six years, identified under the FY 2025 – FY 2030 CTP, to enhance safety, improve ride quality, and support economic growth. The funding will be used to improve nearly 1,700 miles of pavement in FY 2026 through patching, resurfacing, and other pavement rehabilitation projects.
- Phase 1 of the one-stop truck plaza improvement project at Dundalk Marine Terminal (DMT) was completed in December 2024. The project aims to reduce vehicle idling time, thereby lowering emissions and enhancing sustainability at the terminal. It features new guard booths and systems to expedite truck entry processes. The project is expected to be completed in full in 2025.

Traffic Management Strategy

- The University of Maryland Center for Advanced Transportation Technology (CATT) Lab continues to support MDOT by forecasting traffic conditions for the days immediately prior to, during, and after the Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Winter holidays for the National Capital and Baltimore regions. Such forecasting will assist in anticipating and reducing congestion on State roadways, thereby improving mobility, safety, and efficiency as well as reducing GHG emissions.

Dundalk Marine Terminal

SUSTAINABLE DESIGN, MATERIALS, AND PRACTICES

MDOT continues to take steps to ensure that its assets and facilities are designed to be sustainable and resilient to the impacts of climate change while also supporting the goal of reduced GHG emissions throughout its transportation system. This includes projects that focus on renewable energy systems, energy efficiency upgrades, long-term resilience of transportation assets and infrastructure, and incorporating evolving needs and changing technology, including the potential for carbon sequestration. A large element of this is keeping MDOT assets in a state of good repair and updating facilities when necessary to optimize energy efficiency. This asset management approach, from facilities to vehicles, reduces the environmental impact while also making them more resilient to climate impacts.

BWI Airport soon to get 70 percent of its power through a non-carbon-based source (hydro and solar), and Martin State Airport's non-carbon-based supply to reach 50 percent.

MPA was awarded a game-changing $147 million in FY 2025, under the EPA Clean Ports Program to update and expand its emissions inventory and emissions reduction strategy plan. It will include the deployment of 220 ZEVs, equipment, and chargers at Dundalk and Seagirt Marine Terminals. The funding will also pay for capacity upgrades to the port's electrical grid, which will help significantly reduce GHG emissions with an estimated 35 percent decrease in carbon dioxide equivalent compared to 2020 levels.

Through the MDOT's Urban Tree Program, in partnership with the Department of Natural Resources (DNR) and the Maryland Urban and Community Forestry Committee, MDOT has planted nearly 2,600 trees across more than 40 communities to improve air quality and help address the urban heat island effect. Furthermore, MVA continues its partnership with the DNR to support their Tree-Mendous Maryland Program. The Program focuses on planting native trees on public lands, school properties, and community open spaces. In FY 2025, $136,813 was donated through MVA's registration feature which will fund the planting of approximately 3,420 trees.

MDOT is involved in a number of tree planting initiatives, which include:

- ***Urban Tree Program***
- ***Tree-Mendous Maryland Program***
- ***MDTA initiative to plant trees***
- ***MDOT's partnership with Atlantic Conservation Coalition***

Across modal administrations, MDOT is advancing a range of renewable energy initiatives that support Maryland's climate goals and the Department's commitment to sustainability. MDOT's Solar Energy Partnership Program, with $50 million from Maryland Energy Administration, will further the Department's commitment to the environment and help MDOT reach its goal of generating 100 megawatts of solar on State property. SHA received $1.36 million in CRP funding to support planning efforts for the installation of solar at 14 SHA-owned Park & Ride sites. During FY 2025, MVA completed a solar feasibility study to identify viable ground solar installation locations on MVA property. MVA is further assessing additional location(s) that could enhance the State Government's goal to achieve net zero GHG emissions by 2045. MVA intends to use MDOT's solar contract for solar

project installation and maintenance. MPA, MTA, and MDTA are all assessing their available properties to determine feasibility for solar development.

See Appendix A for the full list of accomplishments related to sustainable design, materials, and practices.

MDOT's Urban Tree Program

Challenges and Opportunities

Several challenges and opportunities exist as MDOT continues to work to ensure that its facilities and operations are efficient and promoting the use of renewable energy. Acquiring new equipment can be a significant capital investment, and the installation and maintenance of new equipment requires trained staff.

As more local governments and private companies develop GHG reduction targets, there may be additional opportunities for partnerships and collaboration to leverage funding. Opportunities to partner with local communities, such as through the MDOT Urban Tree Program, provide significant co-benefits.

Solar arrays on the roof of the MTA NW Bus Division

Strategies for FY 2026

Energy Efficiency Strategies

- MAA will continue projects to upgrade light-emitting diode (LED) lighting at Baltimore/Washington International (BWI) Thurgood Marshall and Martin State Airports, including interior lighting and hangars, much of which is being coordinated through Baltimore Gas & Electric (BGE) at no cost to MAA. Through the BGE partnership, LED lighting at 10 locations around BWI Marshall will yield savings of 1.2 megawatt-hour (MWH) per year.
- MDTA's efforts to enhance the energy efficiency of its facilities include various measures, such as replacement of Baltimore harbor tunnel lighting with energy efficient LED fixtures, generator replacement at multiple facilities, and upgrading existing underpass and low-level lighting with LED along the I-95.
- MDTA is updating the software of the building automation system which will allow maximum control of heating, ventilation and air conditioning (HVAC) system and result in energy reduction and a decrease in GHG emissions.
- In FY 2026, MVA will work towards providing the most current and innovative technologies for future replacements which include generators and Automatic Transfer Switch (ATS) systems,

boiler and chiller replacements, computer room air conditioning, and power distribution projects.

Renewable Energy Strategies

- MAA will conduct a feasibility study to consider adding back-up battery storage to solar sites to create a microgrid to enhance resiliency of the system.

Other Sustainable Strategies

- DGS' Decarbonization Policy, issued in March 2025, will guide construction and project design for MDOT agencies. Energy savings working groups led by DGS will continue to inform MDOT and other State agencies of best practices to support state decarbonization goals in project development.
- MAA received a Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant to study the feasibility of developing a ground transportation center and automated people mover to enhance customer experience and operational efficiency, reduce congestion, reduce engine idle time, and remove shuttle buses (fossil fuel powered) from fleet.

MVA's Tree-Mendous Maryland Program

RESILIENCE AND ADAPTATION

MDOT continues to be a leader in integrating resilience and adaptation into agency processes by identifying and improving understanding of system vulnerabilities, investing additional state and federal dollars into resilience projects, and expanding coordination with partners and stakeholders within and beyond MDOT in responding to challenges, communicating potential risks, and developing action plans to reduce risk, enhance resilience, and ensure rapid response from disruptions. Transportation resiliency is vital in keeping the traveling public safe and the system open for travel during any natural hazard events, and under future conditions, while reducing loss and saving critical state dollars.

- In August of 2024, the FHWA approved MDOT's inaugural Transportation Resilience Improvement Plan (TRIP). The TRIP provides a guide for strategic investment in Maryland's critical infrastructure and proactively identifies actions that can be taken to align adaptation and mitigation efforts throughout MDOT. MDOT also received approval on the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Priority Project List,[7] which includes projects from across the enterprise. Projects on this list can receive up to a 10 percent reduction in the non-federal match when using PROTECT funding dollars, saving crucial state dollars.
- Coastal Resilience and Climate Change Vulnerability Assessment - MPA received a $150,000 Federal Emergency Management Administration (FEMA) grant under its Building Resilient Infrastructure and Communities Program to develop a comprehensive flood and storm vulnerability assessment and improve overall coastal resiliency at its marine terminals. This assessment was conducted in 2023 through 2024, and a coastal resiliency report along with interactive mapping was completed in June 2025.
- MPA Engineering initiated construction in December 2024 for several resiliency projects to mitigate flooding risks at DMT. These include:
  - First Street Box Culvert: The culvert will improve drainage for high-intensity storms and increase the capacity for stormwater management at the Dundalk Marine Terminal.
  - Tidal Gate Project: This project will prevent the infiltration of tidal flows into the stormwater system by installing gates to block high tides.
  - Sea Curb Project: A sea wall barrier is being constructed to protect DMT from storm surges and rising sea levels.
- SHA is implementing a flood mitigation project at MD 249 (Piney Point Road) on Saint George Island. The project proposes elevating the roadway to a minimum of 3 feet above mean sea level, eliminating low spots and significantly reducing flooding risks. In addition, living and hybrid-living shorelines will be implemented to absorb wave action, prevent tidal flooding and mitigate ongoing shoreline erosion. Drainage systems along the roadway will also be upgraded or replaced to ensure the effective redirection of stormwater and tidal flows.

[7] https://www.mdot.maryland.gov/OPCP/MDOTPROTECTPriorityList_8.12.24.pdf

Challenges and Opportunities

Enhancing the resilience of the transportation system is not without its challenges. To be effective, project designs must be informed by an understanding of future conditions – which can pose a particular challenge to transportation due to the long service life of many assets – and include design features that are protective against multiple hazards (e.g., heat and flooding), all while being cognizant of interconnected transportation systems and the environment that the assets exist within. Additionally, protective project components which enhance resilience come with added costs, often require additional permit or regulatory reviews which can both impact project implementation timelines.

The challenges also present the opportunity for improved project design and delivery systems, enhanced cost-benefit analyses and for expanded inter- and intra-modal coordination for project delivery in areas with high vulnerability, which could result in the realization of significant co-benefits, with reduced costs. The operationalization and integration of resilience will support current and future transportation system delivery, ensuring MDOT is able to continue delivering safe and reliable options in the face of system disruptions from natural hazards.

Strategies for FY 2026

- MDOT will finalize and approve the first MDOT Resilience Policy to guide resiliency planning and implementation across the modal administrations.
- MDOT will develop the Climate Risk and Resilience Analysis Tool that will assess hazard risk to transportation infrastructure for multiple modes of transportation.
- MDOT will continue identifying projects for obligation of PROTECT Formula funding, ensuring inclusion on the PROTECT Priority Project List, to receive reduced non-federal state match requirements.

MDOT Transportation Resilience Improvement Plan

FY 2026 CLIMATE ACTIONS

MDOT will continue to build a safer, reliable, cleaner, and more efficient transportation system for the State of Maryland in FY 2026. MDOT will integrate various planning, management, and implementation efforts to combat climate change impacts, ensuring a better transportation system for years to come. Working in partnership with other State agencies, local governments, businesses, and organizations, MDOT will seek opportunities to further reduce GHG emissions and enhance resiliency and reliability agency wide.

MDOT is advancing EV charging infrastructure through initiatives such as the Zero Emission Vehicle Infrastructure Plan (ZEVIP) and the Clean Corridor Coalition, a multi-state collaboration to deploy medium- and heavy-duty charging infrastructure along the I-95 corridor and adjacent roads from Connecticut to Maryland.

In 2023, Maryland adopted the Advanced Clean Cars II (ACC II) and Advanced Clean Trucks (ACT) regulations to reduce GHG emissions and advance the State's climate goals. Since then, the EPA has proposed rescinding various vehicle GHG standards including ACC II and ACT by repealing California's waiver under the Clean Air Act to set stricter standards. On top of these changes at the EPA, Congress invoked the Congressional Review Act to pass resolutions disapproving and nullifying EPA's waiver of preemption for the ACC II rule, thereby preventing California and other states from enforcing that standard. The EPA has also proposed repealing the 2009 Endangerment Finding,[8] a move that would dismantle the legal foundation for regulating climate pollutants under the Clean Air Act. These actions threaten federal EV mandates and undermine national GHG reduction targets—potentially slowing the growth of EV adoption across the U.S. Despite this shift, the MDOT remains committed to advancing clean transportation for Maryland. MDOT continues to invest in EV infrastructure, expand charging networks, and collaborate with automakers and regional partners to accelerate the EV market statewide.

Increasing the deployment of EVs and charging infrastructure is a significant priority for MDOT over the next year. MDOT will continue to seek additional funding opportunities by applying for discretionary grants, maximizing federal formula funding, and engaging in partnerships to produce GHG-reducing projects, such as electrifying the MDOT vehicle fleet and installing publicly accessible EV charging infrastructure. In FY 2026, MDOT will continue implementing the NEVI program funding, grant funds awarded through the Climate Pollution Reduction Grant (CPRG) Program, and federal formula funding available through the CRP and the PROTECT Program. MDOT will also expand its internal working groups and leverage assistance and resources from different departments, such as DGS and DBM.

More than $10 billion worth of MDOT projects between 2025 and 2030 will contribute to the reduction of on-road transportation GHG emissions. This includes more than $5 billion of transit projects and nearly $500 million of active transportation projects that will lead to VMT reduction.

MDOT will promote development of TDM strategies, transit investment, TOD incentives and strategies,

[8] https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a

and active transportation infrastructure improvements to continue to reduce VMT in line with the goal of reducing VMT per capita by 10 percent by the year 2030. MDOT will promote mode shift by ensuring that the public transit systems throughout the region are safe, efficient, and reliable. MTA continues to modernize its current systems and fleet and expand access to new transit opportunities, such as the Purple and Red Lines. More than $5 billion devoted to MTA major projects in the FY 2025 – FY 2030 CTP reflects these efforts. To promote TOD, MDOT is standing up a joint development program, and specifically advancing development at several MARC and Metro stations. MDOT is also continuing to release funding for a TOD Capital Grant program in FY 2026.

Regarding active transportation strategies, MDOT's investments in active transportation are the largest on record with the newly released Draft CTP for FY 2026 – FY 2031, which will fund more than $537 million in active transportation projects over this six-year period. Of this total, more than $240 million is dedicated to the actual construction – the final phase of implementation – of bicycle and pedestrian projects. Active transportation projects receiving MDOT funds range from ADA-accessible sidewalk improvements on State highways to grants for jurisdictions developing shared-use paths and on-street bicycle facilities. In Prince George's County, MDOT is working to improve the 11-mile US 1 corridor to enhance pedestrian and bicycle safety, increase community connections, and reduce congestion. This project connects to the "quick-build" shared-use path that MDOT installed on US 1 in Howard County and moves forward MDOT's PSAP. Another current project is the St. Michaels Nature Trail Extension which will add 1.25 miles to this scenic resource, including a bridge over the wetlands and various amenities. The project is funded through both the Transportation Alternatives Program and Kim Lamphier Bikeways Network Program.

MDOT will continue to support the implementation of the MDOT CPRP and support the prioritization and advancement of critical GHG-beneficial transportation projects to help ensure that Maryland meets the ambitious goals established in the CSNA and the MTP. MDOT is evaluating the potential impacts of loss of policy and funding support from the federal climate change mitigation initiatives and programs that will impact Maryland's ability to reach its climate goals. Despite the changing priorities at the federal level, MDOT will remain committed to combatting climate change through continued investments in GHG reducing projects, programs, and implementation.

MTA zero-emission electric bus

APPENDIX A: MDOT's 2025 Accomplishments Categorized by Strategies

TRANSPORTATION TECHNOLOGY

GHG Reduction Strategies	MDOT Accomplishments	Mode
EVs and Charging Infrastructure	In December 2024, MDOT released its Request for Proposals for the Second Round of the Maryland NEVI Program,[9] which provides up to $30 million in federal funding to build charging infrastructure along 23 designated EV Alternative Fuel Corridors.	SHA
	MDOT, in partnership with Pennsylvania Department of Transportation, New Jersey Department of Environmental Protection, and West Virginia Department of Transportation (through the MD-NJ-PA-WV Charging Ahead Partnership), received about $18.6 million under Charging and Fueling Infrastructure (CFI) Discretionary Grant to deploy alternative fuel and electric vehicle charging infrastructure along the I-81 and I-78 corridors.	SHA
	In July 2024, the Clean Corridor Coalition was awarded a $249 million grant from the U.S. EPA CPRG program. The Clean Corridor Coalition will support deployment of medium- and heavy-duty zero-emission vehicle charging infrastructure for freight electrification along the I-95 corridor and adjacent roads from Connecticut to Maryland.	TSO
	SHA is leading a pilot project to evaluate new technology capable of accurately distinguishing EVs from internal combustion engine vehicles along a key corridor. This effort will support more accurate emissions calculations and inform EV infrastructure planning.	SHA
Public Transportation (EV Transit Bus Fleet)	MTA continued operating the first seven Battery Electric Buses (BEBs) in Core Bus service at Kirk Division. MTA completed design for the addition of several charging stations to support BEBs at Kirk and Northwest Division and worked with DGS to fulfill orders and identify cooperative contracting opportunities to support additional stations at MTA depots.	MTA
	MTA completed a 12-months air quality monitoring test on several diesel buses in the Spring of 2025. The results of this analysis are being reviewed by agency leadership to lend guidance on potential GHG emissions reductions per bus.	MTA
	Locally Operated Transit Systems (LOTS) agencies have continued planning and implementation activities for zero-emissions buses and support vehicles, leveraging guidance from the ZEB Transition Feasibility efforts led by MTA.	MTA
	WMATA introduced four battery-electric buses at Shepherd Parkway Bus Division; eight more are expected to be in service by the end of 2025, with three of those already on property in preparation for service. WMATA also began using six new electric work trucks for its internal operations.	WMATA
Connected and Automated	In FY 2025, the Maryland CAV Working Group focused on improving the public's knowledge and education of advanced driver assistance systems, by issuing a social media toolkit providing verbiage for posts and ready-to-use resolution graphics.	MVA

[9] https://evplan.mdot.maryland.gov/?doing_wp_cron=1765222847.9872701168060302734375

Vehicle (CAV) Technologies	SHA continues to coordinate with local agencies and partners on the need for and deployment of a statewide security certificate health monitoring dashboard for CAV equipment. This aims to ensure that all Connected Vehicle Roadside Units and Onboard Units have valid certificates for secure message delivery and receipt.	SHA
	SHA now monitors major arterial corridors and more than 1,000 signalized intersections statewide using third-party Connected Vehicle data. This application allows SHA personnel to identify and address operational and maintenance issues on the fly. It also gives staff an opportunity to schedule prioritized equipment repairs when necessary.	SHA
	MAA, in collaboration with the Safety and Mobility Advancements Regional Transportation and Economics Research (SMARTER) Center and Center for Equitable Artificial Intelligence and Machine Learning Systems (CEAMLS) at Morgan State University developed the groundbreaking Urban Flow Autonomous Wheelchair pilot program at Baltimore-Washington International Thurgood Marshall Airport. This pilot program has demonstrated that autonomous wheelchairs can be used to transport passengers from airport entrance to gate, including stops at the ticket counter and through the security checkpoint.	MAA
MDOT Fleet Electrification	MTA continues to operate 11 non-revenue and employee fleet EVs, supported by 11 charging stations at MTA facilities.	MTA
	MPA was awarded CRP funding for the purchase of 11 light-duty EVs to replace gasoline vehicles and reduce emissions. Procurement is underway to purchase the vehicles.	MPA

VMT REDUCTION

GHG Reduction Strategies	MDOT Accomplishments	Mode
Public Transportation (New Rail or Bus Capacity of Frequency & Improved Operations)	MTA ridership increased by 2.3 percent from June 2024 to May 2025 compared to the same time last year. MTA provided over 69.8 million rides from June 2024-May 2025.	MTA
	MTA continued to advance the replacement of the aging Light Rail fleet with 52 new, modern light-rail vehicles, leveraging a $213 million Federal grant and supporting the advancement of the Light Rail Modernization Program.	MTA
	In June 2025, MTA released the final BMORE BUS[10] study, a transit plan for the Baltimore region to identify bus service improvements that could be possible over the next five to ten years with additional resources.	MTA
	MTA completed the MARC Growth and Transformation Plan by June 2025, an update to the 2019 MARC Cornerstone Plan, seeking public feedback on the future vision for MARC service and engaging railroads and other stakeholders.	MTA
	MDOT, along with Prince George's and Charles Counties, continued a PEL Study for advancing the Southern Maryland Rapid Transit Project.[11] Public meetings for the project were held in June 2025.	MTA
	MTA updated its Regional Transit Plan (RTP) in 2025 which reports progress towards achieving strategies identified in the 2020 RTP and updates the RTP's transit market and demand analysis to reflect changes over the last five years and new projections for the next twenty years.	MTA
	WMATA implemented Automatic Train Operation and a return to design speeds on all its lines, which has decreased end-to-end travel times by up to eight minutes, making operating the service more efficient.	WMATA
	Over the last year, WMATA added service to the Green and Yellow Lines, currently operating at six-minute frequencies all weekdays. As a result, in FY 2025, 69 percent of Metrorail customer trips have maximum wait times of six minutes or less.	WMATA
	In FY 2025, WMATA nearly doubled the amount of bus priority lane miles, ending the year with 29 miles compared to 15 the year prior. About 10 of the new lane miles are in Maryland.	WMATA
	WMATA launched the new Better Bus Network on June 29, 2025. The new network added 11 routes to the frequent service network. WMATA collaborated with Montgomery County and Prince George's County to create a more efficient bus network in Maryland. The average resident gains access to at least five percent more key destinations (e.g., hospitals, groceries, entertainment).	WMATA
Purple Line	The Purple Line project achieved several milestones including continuation of major construction at all 21 stations and over 50 percent of track, bringing project completion to the 75-80 percent range, and the commencement of dynamic testing of Light Rail Vehicles delivered to the new Operation & Maintenance facility on their one-mile test track.	MTA

[10] https://www.mta.maryland.gov/bmorebus
[11] https://smrtmaryland.com/

Red Line Transit	Detailed analysis is currently being completed to evaluate alignment alternatives for Light Rail service along the Red Line,[12] and a supplemental environmental impact assessment is being prepared building on previous work. Open houses were held in the Fall of 2024 and outreach.	MTA
TOD	MDOT's enhanced TOD Program launched a $5 million grant and loan program for localities and advanced joint development activities at Reisterstown Plaza Metro Station, Bowie State MARC Station, and Odenton MARC Station. These efforts will advance the development of inclusive and thriving communities.	TSO
	MDOT was selected to receive $1 million in funding from the Build America Bureau for "Baltimore Region Asset Scan for Springboarding TOD through Innovative Financing" project.	TSO
	WMATA approved three new joint development agreements between July 2024 and September 2025, bringing the total to five new agreements since 2022. The three new agreements at Takoma, Twinbrook, and Landover will add over 1,100 housing units adjacent to rail stations.	WMATA
TDM	MDOT supports TDM through its Commuter Choice Maryland program and partnerships with the Metropolitan Washington Council of Governments and other regional, State and local agencies, as well as collaborating with other TDM program managers. MDOT is working to enroll 100 employers in the free Employer Partner Program and in May 2025, released the Ride Together Rewards program, including carpool and vanpool incentives.	TSO
Active Transportation and Micromobility Strategies	MDOT continues to implement its Complete Streets policy which prioritizes safe, reliable, equitable, and sustainable travel for all. Line 6 in SHA's Statewide construction program increased funding for Complete Streets by over $69 million for FY 2026 – FY 2031 to a total of $187.8 million. MDOT continues to make progress on the two rounds of PSAP projects, with 13 total corridors statewide at various stages of project development. There are also three completed quick build demonstration projects and six currently underway. These projects could inform approaches for the Vulnerable Road User projects in design under the Complete Streets program.	SHA
	Since the full launch of the Sidewalk Data collaboration program as part of the 2050 Bicycle and Pedestrian Master Plan (published in January 2024), 21 counties have joined the effort to map missing sidewalk data to our statewide database. Those counties have more than tripled the miles of sidewalk added to over 3,000 miles of sidewalk that was either not mapped or stored in fragmented datasets. This year, MDOT is training each county to collect additional information and map all locally adopted bicycle and pedestrian plans.	TSO
	In July 2025, SHA broke ground on the MD 650 PSAP project. This is a $15 million investment in pedestrian, bicycle and multi-modal improvements along nearly 2.5 miles of MD 650 (New Hampshire Avenue) from University Boulevard to Powder Mill Road in Prince George's and Montgomery counties.	SHA
	A new application cycle of the Kim Lamphier Bikeways Network Grant Program was awarded in September 2025 with $2 million in funding. The program focuses on local priorities for building networks of bicycle infrastructure improvements, such as trail connections, on-road bicycle facilities, and enhancing last-mile connections.	SHA
	MDOT invested $10.2 million in FY 2025 to design and construct new sidewalks and pedestrian facilities, including the construction of new sidewalks along MD 214 (Central Avenue) in Anne Arundel County, U.S. 1 (Washington Boulevard) in Howard County and MD 7 (Delaware Avenue) in Elkton.	SHA

[12] https://redlinemaryland.com/

	MDOT released the Maryland State Transportation Trails Strategic Plan in August 2025, which was built upon the foundation of the 2009 Maryland Trails Plan and created an updated resource for shared-use path/trail projects that will contribute to the statewide bicycle and pedestrian transportation network.	TSO
Other	MVA continues to work on improving and expanding the functionalities of alternative service delivery (ASD) such as Customer Connect and myMVA. MVA exceeded its FY 2024 target of 79.5 percent ASD of transactions and reached over 81 percent of ASD transactions during FY 2025, helping MVA customers reduce VMT across demographics.	MVA
	MVA aims to help reduce miles traveled by Maryland customers with its One-Stop-Shop government services. Veterans Affairs, DNR, the U.S. Transportation Security Administration (TSA) and EZ Pass are some of the government services available to customers in select Branches.	MVA

CONGESTION MITIGATION

GHG Reduction Strategies	MDOT Accomplishments	Mode
On-Road Technology	During 2024, CHART provided a total of 65,710 incident responses and disabled vehicle assists. The average incident response time with CHART in 2024 was 11.53 minutes. The results of these efforts include reductions of more than 7 million gallons of fuel and over 2 million hours of truck delay, in addition to the reduction of emissions (more than 67,000 MT CO2). In 2024, the reduction in emissions resulted in total savings of 43.06 million dollars.	SHA
Key Bridge Reconstruction	In January 2025, MDTA was granted a permit for the reconstruction of the Key Bridge by the U.S. Army Corps of Engineers. Some of the permissions include specific parameters for dredging in the water, modifications and discharging any dredged or fill material. The pre-construction activities have begun, which include inspecting about 1,100 homes and businesses in nearby communities, scanning the riverbed, collecting soil samples, and surveying. MDTA has approved a $73 million contract for Kiewit Infrastructure Company to design and construct the new Key Bridge.	MDTA
Express Toll Lanes	MDTA completed construction of newly extended northbound Express Toll Lanes (ETL) along I-95 and opened to traffic during FY 2025. This ETL project includes northbound extension along I-95 which spans from White Marsh Boulevard (MD 43) to Mountain Road (MD 152), providing an additional 6.5-miles of existing lanes and allowing drivers a reliable travel option, especially during peak travel times in exchange for a variable toll. This allows motorists to enjoy relatively congestion-free travel and maintain steady speeds. The extension project is part of MDTA's long-term investment plan to keep Maryland's transportation network efficient and responsive to growing traffic demands.	MDTA
Other	MDOT SHA publishes the Maryland State Highway Annual Mobility Report to identify successes, challenges, and strategies being used to improve the transportation services for the Marylanders. The intent is to inform the decision makers, customers, and staff at SHA to develop strategic multi-modal congestion management for safe, efficient and reliable transportation of people and goods. One component of the report is to report on the benefits of various improvements including decreased fuel consumption and decreased emissions.	SHA
	In spring 2025, SHA received $1.6 million funding under the Bridge Investment Program for the project Rethinking the I-68 Viaduct: A Plan to Reconnect Cumberland. This project will support a robust traffic analysis that will collect and process data on the number of VMT within the project area and allow MDOT to quantify the total impact of transportation on the air quality and harmful emissions within the Project Area, a critical step which will inform congestion mitigation and air quality improvement.	SHA

SUSTAINABLE DESIGN, MATERIALS, AND PRACTICES

GHG Reduction Strategies	MDOT Accomplishments	Mode
Lead-By-Example (Renewable Energy)	WMATA continues to modernize its operations, increase energy efficiency, and engage strategically in the energy market. WMATA's solar carport program leveraged an innovative lease agreement at four Metrorail stations—Anacostia, Cheverly, Naylor Rd, and Southern Avenue— to provide nearly 10 MW of community solar to the region, annual revenue to WMATA, station safety improvements, and shaded parking to customers. In 2025, all four sites were successfully energized and opened for customer parking.	WMATA
	MTA completed an Energy Emissions Report in January 2025, summarizing potential energy efficiency measures that can be conducted at MTA facilities based on energy audits completed by MTA and the project team. MTA is beginning the process of confirming project prioritization, initiating procurement and agreements to implement GHG emissions reductions.	MTA
	MDOT's Solar Energy Partnership Program, with $50 million from Maryland Energy Administration, will further the Department's commitment to the environment and help MDOT reach its goal of generating 100 megawatts of solar on State property.	TSO
	SHA received $1.36 million in CRP funding to support planning efforts for the installation of solar at 14 SHA-owned Park & Ride sites.	SHA
	During FY 2025, MVA completed a solar feasibility study to identify viable ground solar installation locations on MVA property. MVA is now assessing which location(s) could enhance the State Government's goal to achieve net zero GHG emissions by 2045. MVA intends to use TSO's solar contract for solar project installation and maintenance.	MVA
Lead-By-Example (Building Energy Use)	The CSNA established a statewide building energy performance standard (BEPS) that requires Maryland's large commercial and multifamily buildings (35,000 square feet and larger, excluding the parking garage area) to achieve incremental reductions in net direct GHG emissions, ultimately resulting in net-zero onsite GHG emissions by January 1, 2040. Towards these goals, MPA has invested in several key energy efficiency improvements at World Trade Center including level 3 energy audits, LED lighting projects, elevator modernization, and Air Handler Unit (AHU) Rehabilitation. MPA has also initiated several key sustainability projects aimed at improving the resilience of and reducing emissions at the Dundalk Marine Terminal including L2 feeder replacement and one-stop shop project which includes new guard booths and systems to expedite truck entry processes.	MPA
	In compliance with the CSNA BEPS, MVA is actively targeting equipment replacement and identifying areas for improvement that will help us meet this goal. MVA is achieving this by utilizing technology solutions for emission reduction and upgrading HVAC systems MVA wide. In addition, MVA continues to lower HVAC costs and carbon emissions with the use of building automation system controls to monitor ventilation and air quality, scheduled routine maintenance, and HVAC filter changes.	MVA
	WMATA utilizes high-performance building certifications like the U.S. Green Building Council's LEED® standards to improve building efficiency, support healthier work environments, and demonstrate environmental stewardship in the communities it serves. In December 2024, the Potomac Yard–VT Metro Station recently earned LEED® Gold	WMATA

	certification—WMATA's fifteenth certified project—thanks in part to its role in closing a critical transit gap, promoting walkability, and encouraging sustainable travel choices.	
Airport Decarbonization Initiatives	MAA negotiated an additional supply of renewable energy (16,000 MWH hydro and 16,000 MWH solar) to bring the supply of non-carbon-based power to BWI Marhsall Airport to 70 percent and Martin State Airport's non-carbon-based supply to 50 percent. During FY 2025 over 50 percent of the electricity used by BWI was supplied by wind, solar, Hydro and nuclear.	MAA
	The primary terminal taxiway supporting approximately 70 percent of the BWI passenger activity, is undergoing a multi-phase, multi-year reconstruction to maintain critical airfield infrastructure and provide a safe, secure, and resilient transportation system. Improvements include reconstruction of 26,000 square yards of existing asphalt taxiway in concrete and replacing the taxiway lighting and signage with high efficiency LED lighting systems. Project set to be completed in January 2026.	MAA
Port Decarbonization Initiatives	In FY 2025, MPA was awarded a game-changing $147 million under the EPA Clean Ports Program. The grant further supports MPA's and it's six private partners' ongoing decarbonization and electrification efforts. The funding allows for the purchase of 220 pieces of new zero emissions vehicles, equipment and charging infrastructure. The funding will also provide capacity upgrades to the port's electrical grid, at Dundalk and Seagirt Marine Terminals, which will significantly help reduce greenhouse gas emissions as well as support engagement programs with local underserved communities	MPA
	MPA received an EPA award of nearly $3.5 million for the 2022-2023 Diesel Emissions Reduction Act (DERA) National Grants opportunity. The project will support equipment upgrades for multiple Port-related businesses and include the replacement of 42 non-road diesel-powered equipment with zero emission units and Tier 4 Final engines, increasing fuel efficiency and decreasing carbon emissions.	MPA
	A Memorandum of Understanding (MoU) was signed between MDE and Maryland Environmental Service (MES) for $1,500,000 from the Volkswagen Settlement Funds to be used for the Port's Dollars for Drays program to replace older dray trucks with newer, less polluting models.	MPA
Carbon Sequestration	Through the Urban Tree Program, MDOT supports Maryland's goal to plant five million trees by 2031 and has awarded over $164,000 in grants through the end of FY 2025. These funds have enabled the planting of nearly 2,600 trees across 40+ communities, advancing statewide reforestation efforts under the Tree Solutions Now Act of 2021.	TSO
	For over 200 unique projects, MDTA planted 5,474 trees, 2,651 shrubs, 26,285 herbaceous plants and had almost 100 planting locations for FY 2025.	MDTA
	The Atlantic Conservation Coalition, led by North Carolina with Virginia, Maryland and South Carolina, received an award for a regional approach that uses natural climate solutions to reduce GHG emissions. MDE and MPA are currently working on a MOU to initiate the project. Approximately $1,000,000 will be provided to MPA for tree planting over the next 5 years.	MPA
	MVA's partnership with the Maryland DNR Tree-Mendous Maryland Program continues to focus on planting native trees on public lands. In FY 2025, $136,813 was donated through MVA's registration feature. This can enable the planting of approximately 3,420 trees.	MVA

Food Recycling	In FY 2025, BWI Marshall collected 38 tons of used cooking oil to be refined into Sustainable Aviation Fuel (SAF) by Neste, which then sells it to airlines around the world.	MAA
	MAA collected 122 tons of food scraps from the BWI Marshall's restaurant kitchens in FY 2025. By diverting food scraps away from landfills, MAA helps reduce GHG emissions.	MAA
Other	From August 2024 through May 2025, MPA actively supported a local, community-led nature-based solutions initiative by providing over 1,600 cubic yards (more than 130 truckloads) of dredged material for the Stoney Beach Community's living shoreline project.	MPA
	In 2025, MPA published the second annual Sustainability Report, which summarizes the sustainability programs, projects, and initiatives that MPA has implemented to date, and will continue to build on and enhance. The report organizes MPA's efforts into six focus areas: Economic Vitality, Infrastructure, Health Safety and Security, Environmental Stewardship, Climate and Energy, and Community Building. MPA is actively pursuing its commitment to a thriving and sustainable port and has been building momentum toward a unified, long-term Sustainability Strategy.	MPA