

System Performance Report

**2050 Statewide Transportation Plan (SWTP)/
2021 Statewide Strategic Transportation Plan
(SSTP)**

**FY 2021-2024 Statewide Transportation
Improvement Program (STIP)**



Background

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state Departments of Transportation (DOT) and Metropolitan Planning Organizations (MPO) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

To help transportation agencies take the necessary steps toward achieving the national goals, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) promulgated a series of rulemakings between 2016 and 2019 that established performance measures for the federal-aid highway and transit programs. The federal performance measure rules fall into five broad categories – highway safety, highway asset management, highway system performance, transit asset management and public transportation safety.

The highway safety performance measures track roadway, bicycle, and pedestrian fatalities and serious injuries. The highway asset management performance measures track the condition of pavement and bridges, to assess how well these assets are being maintained. The highway system performance measures track the reliability of passenger and freight travel, as well as highway congestion and emissions in areas that are nonattainment or maintenance areas for national air quality standards. The transit asset management performance measures track the condition of transit vehicles, equipment, and facilities. The public transportation safety measures track transit related fatalities, serious injuries, and incidents.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule).¹ This regulation implements the transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

Under these federal TPM requirements, and in accordance with federal transportation planning regulations and the Georgia Performance Management Agreement between GDOT and the Georgia Association of Metropolitan Planning Organizations (GAMPO), GDOT and each Georgia MPO must include a description of federal transportation performance measures and targets and a system performance report in their respective statewide and metropolitan transportation plans and programs. The system performance report evaluates the condition and performance of the transportation system with respect to the federal performance targets, including progress achieved by GDOT and the MPOs in meeting those targets. Future system performance reports must also compare current performance with system performance recorded in previous reports.

The 2050 Statewide Transportation Plan (SWTP)/2021 Statewide Strategic Transportation Plan (SSTP) combines the state's strategic business case for transportation investment with the long-range, comprehensive transportation planning requirements in federal law. This plan provides a strategic look at priorities and investment opportunities in Georgia's transportation system through the year 2050. It develops a set of fiscally constrained investment priorities to support the Governor's strategic goals for Georgia and to address the state's changing demands for moving both people and freight. This plan also defines forward-looking strategies to advance transportation planning and collaboration for future investment decisions.

¹ 23 CFR 450.314

The FY 2021-2024 Statewide Transportation Improvement Program (STIP) is GDOT's four-year plan for transportation and capital improvement. The STIP lists federally-funded projects statewide. The STIP's development is guided by the programmatic and categorical investment strategies laid out in the SWTP/SSTP, along with coordination and feedback from rural local elected officials, the State Transportation Board, GDOT management and other divisions, Governor's Office, USDOT and the public.

The GDOT 2050 Statewide Transportation Plan (SWTP)/2021 Statewide Strategic Transportation Plan (SSTP) was approved by Governor Kemp on February 11, 2021 and by the State Transportation Board on February 18, 2021.

The GDOT Fiscal Year (FY) 2021-2024 Statewide Transportation Improvement Program (STIP) was approved by Governor Kemp on April 9, 2021 and by the State Transportation Board on April 15, 2021.

In support of these documents, the Georgia Department of Transportation (GDOT) developed this System Performance Report. This report documents the performance measures and targets required by federal law and rules and describes how the SWTP/SSTP and the STIP will make progress toward these targets.

What is in the System Performance Report?

This system performance report addresses the federal performance measures and the statewide performance targets GDOT established for the following measures:

- Highway safety on all public roads
- Condition of pavement and bridges on Georgia's Interstates and non-Interstate NHS
- Reliability of passenger vehicle and truck travel on the Interstate and non-Interstate NHS and Congestion and emission reductions in air quality nonattainment and maintenance areas
- ***Condition of public transit assets and public transportation safety can be found in the separate GDOT Transit System Performance Report***

Further details of each measure area follow.

Highway Safety/PM1

Effective April 14, 2016, the FHWA established the highway safety performance measures² to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities
2. Rate of fatalities per 100 million vehicle miles traveled
3. Number of serious injuries
4. Rate of serious injuries per 100 million vehicle miles traveled
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

GDOT works in collaboration with safety partners to establish safety performance targets annually for each safety performance measure. Targets are based on an anticipated five-year rolling average. Georgia's statewide safety targets for calendar year 2021 are presented in Table 3, along with statewide

² 23 CFR Part 490, Subpart B

safety performance for four recent reporting periods as reported in GDOT's 2020 HSIP Annual Report. Each MPO in Georgia agreed to support the 2021 statewide targets.

Table 3. Georgia Highway Safety (PM1) Performance and Targets

Performance Measures (five-year rolling average)	2016 Statewide Performance (2012-2016)	2017 Statewide Performance (2013-2017)	2018 Statewide Performance (2014-2018)	2019 Statewide Performance (2015-2019)	2021 Statewide Target (2017-2021)
Number of Fatalities	1,304.8	1374.4	1439.2	1504.6	1,715.0
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.175	1.195	1.207	1.224	1.230
Number of Serious Injuries	4825.2	4922.4	5263.8	5836.2	6,407.0
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	4.366	4.295	4.407	4.721	4.422
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	518.6	523.8	557.2	608.0	686.5

As shown in Table 3, the five-year rolling average for each safety measure increased between 2016 and 2019. While the five-year average for the number of fatalities and fatality rate has increased over this time period, Georgia experienced three consecutive years of decreases in the annual number of traffic fatalities in 2017, 2018, and 2019. These annual decreases will be reflected in the five-year averages for these measures over the next few years.

Beginning in April 2019, FHWA required all states to use a common definition for serious injury reporting. GDOT works with the Traffic Records Coordinating Committee (TRCC) and Crash Outcomes Data Evaluation System (CODES) task teams to evaluate the coding of Suspected Serious Injury data recorded on the state's crash reports. The team revised the 'serious injury' definition, and GDOT conducted training for law enforcement on how to properly report serious injuries. In addition, the team is developing a process for checking police-reported serious injuries in the crash database by cross-referencing the queried values with Emergency Medical Services data and Hospital Records. Additionally, CODES is performing data linkages across all data sources to assess the quality of recent crash reports and to re-calibrate the values from serious injury values in previous years. In June 2020, the data subcommittee took the first step towards redefining and re-calibrating the 'suspected serious injuries' from 2009 to 2019. The numbers in Table 3 for serious injury, serious injury rate, and nonmotorized fatalities and serious injuries reflects the recalibrated of data from previous years, and the 2021 targets have been set accordingly.

Each year, FHWA completes an assessment of progress toward achieving previous safety targets. FHWA determines that a state made significant progress toward its safety targets when at least four of the five targets were met, or the actual outcome was better than the baseline performance. In 2020, FHWA assessed GDOT's progress toward achieving its 2018 safety targets. Based on FHWA's review, Georgia did not make significant progress toward achieving three of its safety targets: serious injury, serious injury rate, and nonmotorized fatalities and serious injuries. As a result, GDOT must ensure that all HSIP safety funds are fully obligated and must develop an HSIP Implementation Plan that describes actions the state will take to meet or make significant progress toward achieving its targets.

The 2018 targets for these three measures were established under the old definition of serious injuries. As discussed above, the task team recently recalibrated crash datasets from previous years to reflect the new serious injury definition. GDOT performed additional analysis that indicates significant progress toward the 2018 targets would be demonstrated with the recalibrated data. The 2021 targets shown in Table 3 were established using the recalibrated trend data and new serious injury definition. GDOT will establish new safety targets annually, and future System Performance Reports will continue to present safety performance over time in relation to previous safety data and established targets.

GDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the long-range transportation planning process reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically, the Georgia Strategic Highway Safety Plan (SHSP) and the Georgia HSIP.

- Developed by the Governor’s Office of Highway Safety, the Georgia SHSP is intended to reduce the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in Georgia. Existing highway safety plans are aligned and coordinated with the SHSP, including the HSIP, the Highway Safety Plan, and MPO and local agency safety plans. The SHSP guides GDOT, the Georgia MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across Georgia. The SHSP defines emphasis areas including impaired driving, occupant protection, distracted driving, intersections, roadway departure, young adult drivers, older drivers, pedestrians, bicyclists, commercial motor vehicles, and motorcycles.
- The GDOT HSIP annual report provide for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The goal of the HSIP process is to reduce the number of crashes, injuries, and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.
- Keeping the people of Georgia safe on its highways and rail crossings is a foundational strategy in the SSTEP. GDOT’s investment scenario plans to invest an average of \$310 million annually through 2050, 13 percent of its total budget. This includes \$200 million in its HSIP program and \$110 million in the rail grade crossing program. This increase in investment is intended to enable GDOT to invest more deeply into highway safety in rural Georgia, where the fatalities per capita are disproportionately high. GDOT also will invest in rail grade crossings, focusing on innovative approaches to reducing conflicts through non-capacity investments.

To support progress towards approved statewide highway safety targets, the FY 2021-2024 STIP includes a number of key safety investments. A total of \$896,565,493 has been programmed in the FY 2021-2024 STIP to improve highway safety; averaging approximately \$224,141,373 per year.

Pavement and Bridge Condition on Georgia’s Interstates and non-Interstate National Highway System/PM2

Effective May 20, 2017, FHWA established performance measures to assess pavement condition³ and bridge condition⁴ for the National Highway Performance Program. This second FHWA performance measure rule established six performance measures:

1. Percent of Interstate pavements in good condition

³ 23 CFR Part 490, Subpart C

⁴ 23 CFR Part 490, Subpart D

2. Percent of Interstate pavements in poor condition
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition
4. Percent of non-Interstate NHS pavements in poor condition
5. Percent of NHS bridges by deck area classified as in good condition
6. Percent of NHS bridges by deck area classified as in poor condition

Pavement Condition Measures

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA defines five metrics that are used to establish pavement condition: International Roughness Index (IRI), cracking percent, rutting, faulting, and Present Serviceability Rating (PSR). Each metric has a numerical scale and a threshold for good, fair, and poor condition. Each pavement section on the Interstate system and non-Interstate NHS is assessed using one or more of these metrics, depending on the pavement type, and is then rated good, fair, or poor using the thresholds.

The pavement condition measures are expressed as the percentage of both Interstate and non-Interstate NHS roads in good or poor condition. Pavement in good condition suggests that no major investment is needed. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

Bridge Condition Measures

The bridge condition measures represent the percentage of bridges, by deck area, on the NHS that are in good condition or poor condition. The condition of each bridge is evaluated by assessing four primary bridge components: deck, superstructure, substructure, and culverts. FHWA created a metric rating threshold for each component to establish good, fair, or poor condition. Every bridge on the NHS is evaluated using these component ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

To determine the percent of bridges in good or in poor condition, the sum of total deck area of good or poor NHS bridges is divided by the total deck area of bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

Pavement and Bridge Targets

Pavement and bridge condition performance is assessed and reported over a four-year performance period defined by FHWA's TPM regulations. At the beginning of each performance period, states and MPOs establish two-year and/or four-year performance targets for each measure. Two-year targets represent expected pavement and bridge condition at the mid-point of the performance period, while the four-year targets represent expected condition at the end of the performance period. States are required to report on pavement and bridge condition at the beginning (baseline), mid-point, and end of the performance period, as well as progress toward achieving targets.

The current performance period began on January 1, 2018 and will end on December 31, 2021. The current two-year targets represent expected pavement and bridge condition at the end of calendar year 2019, while the current four-year targets represent expected condition at the end of calendar year 2021.

Table 4 presents statewide pavement and bridge condition performance for the 2017 baseline year and for 2019, the mid-point of the performance period, as well as the current two-year and four-year statewide targets established by GDOT. GDOT established these two-year and four-year targets on May 16, 2018. Each MPO in Georgia then agreed to program projects to support the state’s targets.

Table 4. Georgia Pavement and Bridge Condition (PM2) Performance and Targets

Performance Measures	Baseline	2019 Actual	2-year Target (2019)	4-year Target (2021)
Percent of Interstate pavements in good condition	60.0%	57.0%	N/A	≥50%
Percent of Interstate pavements in poor condition	4.0%	0.3%	N/A	≤5%
Percent of non-Interstate NHS pavements in good condition (full distress + IRI)	44.0%	46.5%	≥40%	≥40%
Percent of non-Interstate NHS pavements in poor condition (full distress + IRI)	10.0%	0.8%	≤12%	≤12%
Percent of NHS bridges (by deck area) in good condition	47.3%	67.5%	≥50%	≥60%
Percent of NHS bridges (by deck area) in poor condition	1.1%	0.8%	≤10%	≤10%

During the target setting process in 2018, GDOT reviewed historical pavement and bridge condition data and considered current performance trends when setting targets. GDOT adopted the federal minimum condition level of Interstate pavements in poor condition at 5 percent as a target for the Interstate pavement condition measure. Similarly, GDOT established the federal minimum bridge condition level of no more than 10 percent of total NHS bridge deck area in poor condition as the statewide target for bridges in poor condition. GDOT elected to set pavement targets based on full distresses plus IRI metrics.

In September 2020, GDOT completed an assessment of pavement and bridge condition for 2018 and 2019 (the first two years of the current performance period) for the mid performance period report to FHWA. As shown in Table 4, pavement condition generally improved from 2017 to 2019, except for a small decline in the percent of Interstate pavements in good condition. Both bridge measures improved from 2017 to 2019. Georgia met all two-year targets for pavement and bridge condition and is on track to meet the four-year targets.

In 2022, GDOT will report pavement and bridge condition performance for the last two years of the current performance period and report to FHWA on progress in achieving the four-year targets.

GDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. The Department’s planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically, Georgia’s Transportation Asset Management Plan (TAMP) and the Georgia Interstate Preservation Plan.

- MAP-21 required GDOT to develop a TAMP for all NHS pavements and bridges within the state. GDOT’s TAMP includes investment strategies leading to a program of projects that would make progress toward achievement of GDOT’s statewide pavement and bridge condition targets.

- The Georgia Interstate Preservation Plan applied a risk profile to identify and communicate Interstate preservation priorities; this process leveraged a combination of asset management techniques with risk management concepts to prioritize specific investment strategies for the Interstate system in Georgia.
- Keeping assets in good condition is a foundational strategy in the SSTP. Taking care of the basics and keeping GDOT's infrastructure in good condition by investing in the right place at the right time will allow GDOT to make investments to grow the economy. GDOT's investment scenario plans to invest an average of \$412 million annually through 2050 in bridges, which is 17 percent of its total budget. This includes \$200 million on NHS bridges, \$54 million on non-NHS GDOT-owned bridges, and \$158 million on other programs including maintenance, rehabilitation, and preservation for all bridges, the Local Bridge Replacement Program, and the Low Impact Bridge Program. For pavement, GDOT plans to invest an average of \$350 million annually, 15 percent of its total budget. This includes \$160 million on NHS pavements, \$115 million on non-NHS GDOT-owned pavements, and \$75 million on other pavement programs. This investment scenario suggests shifting a portion of bridge and pavement investment levels over the 30-year period to the NHS from non-NHS GDOT-owned bridge and pavement assets. This shift recognizes the role of the NHS in providing statewide and national connectivity for moving both people and freight.

To support progress towards GDOT's statewide PM2 targets, the FY 2021-2024 STIP devotes a significant amount of resources to projects that will maintain pavement and bridge condition. Investments include pavement replacement and reconstruction, bridge replacement and reconstruction, new bridge and pavement capacity, and system resiliency projects that improve NHS bridge components (e.g., upgrading culverts).

A total of \$595,102,404 for bridges has been programmed in the FY 2021-2024 STIP to improve conditions; averaging approximately \$148,775,601 per year. A total of \$920,000,000 is available for NHS maintenance for pavement statewide; averaging approximately \$230,000,000 per year.

System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program/(PM3)

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System⁵, freight movement on the Interstate system⁶, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program⁷. This third FHWA performance measure rule (PM3) established six performance measures, described below.

National Highway System Performance

1. Percent of person-miles on the Interstate system that are reliable
2. Percent of person-miles on the non-Interstate NHS that are reliable

Freight Movement on the Interstate

3. Truck Travel Time Reliability Index (TTTR)

⁵ 23 CFR Part 490, Subpart E

⁶ 23 CFR Part 490, Subpart F

⁷ 23 CFR Part 490, Subparts G and H

Congestion Mitigation and Air Quality Improvement (CMAQ) Program

4. Annual hours of peak hour excessive delay per capita (PHED)
5. Percent of non-single occupant vehicle travel (Non-SOV)
6. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction)

National Highway System Performance Measures

The two system performance measures assess the reliability of travel times on the Interstate or non-Interstate NHS system. The performance metric used to calculate reliability is the Level of Travel Time Reliability (LOTTR). LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, mid-day, PM peak, and weekends) that cover the hours of 6 AM to 8 PM each day.

The LOTTR ratio is calculated for each segment of applicable roadway, essentially comparing the segment with itself. A segment is deemed to be reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The two measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles consider the number of people traveling in buses, cars, and trucks over these roads. A higher value means better performance, i.e., more person-miles of travel are reliable.

Freight Movement Performance Measure

The freight movement performance measure assesses reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, mid-day, PM peak, weekend, and overnight) that cover all hours of the day. For each segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index. A lower TTTR value means better performance, i.e., more reliable truck travel.

CMAQ Performance Measures

The PHED measure quantifies the hours of delay resulting from traffic congestion on the NHS during morning and afternoon weekday peak travel times. Peak travel hours are defined as 6 AM to 10 AM on weekday mornings, and either 3 PM to 7 PM or 4 PM to 8 PM on weekday afternoons. The threshold for excessive delay is based on the travel time at 20 miles per hour or 60 percent of the posted speed limit travel time, whichever is greater, and is measured in 15-minute intervals. Total excessive delay is weighted by vehicle volumes and occupancy and is expressed as the annual hours of excessive delay during the peak hours on a per capita basis. Thus, PHED is a measure of person-hours of delay, rather than vehicle-hours.

The non-SOV travel measure quantifies the percent of travel that occurs by any mode other than driving alone in a motorized vehicle. Non-SOV travel includes travel via carpool, vanpool, public transportation, commuter rail, walking, bicycling, or telecommuting.

The CMAQ Emission Reduction measure assesses performance of the CMAQ Program through measurement of total emission reductions of on-road mobile source emissions. Total emissions reduction is calculated by summing two-year and four-year totals of emission reductions of applicable pollutants, in kilograms per day, resulting from all CMAQ funded projects.

Applicability of the CMAQ Measures

The PHED and Non-SOV measures apply only within the boundaries of an urbanized area (UZA) that contains an NHS road, has a population of more than one million, and contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. States and MPOs with planning boundaries that are within any part of the applicable UZA must coordinate to set a single, unified four-year PHED target for the entire UZA, and single, unified two- and four-year targets for Non-SOV travel.⁸

In Georgia, the PHED and Non-SOV measures currently apply only to the Atlanta UZA. The Atlanta Regional Commission (ARC) and the Cartersville-Bartow MPO (CBMPO) have planning area boundaries that overlap with the UZA, thus GDOT and the two MPOs coordinate to establish single, unified PHED and Non-SOV Travel performance targets.

The CMAQ Emission Reduction measure is applicable to any state and MPO with projects financed with CMAQ funds whose boundary contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. In Georgia, the CMAQ Emission reduction measure applies statewide for GDOT as well as individually for ARC and CBMPO.

PM3 Performance Targets

Performance for the PM3 measures is assessed and reported over a four-year performance period. At the beginning of each performance period, states and MPOs establish two-year and/or four-year performance targets for each measure. Two-year targets represent expected reliability performance at the mid-point of the performance period, while the four-year targets represent expected reliability at the end of the performance period. States report reliability performance at the beginning (baseline), mid-point, and end of the performance period, as well as progress toward achieving targets.

For all PM3 measures except the CMAQ Emission Reduction measure, the current performance period runs from January 1, 2018 to December 31, 2021. Thus, the two-year targets represent expected reliability performance at the end of calendar year 2019, while the four-year targets represent expected performance at the end of calendar year 2021.

For the CMAQ Emission Reduction measure, the first performance period began on October 1, 2017, and will end on September 30, 2021. The current two-year and four-year targets represent cumulative volatile organic compound (VOC) and nitrogen oxides (NOx) emission reductions from CMAQ-funded projects during the periods of October 1, 2017 to September 30, 2019 (for the two-year target) and October 1, 2017 to September 30, 2021 (for the four-year target).

Table 5 presents performance for the PM3 measures for the 2017 baseline year and for 2019, the midpoint of the performance period, as well as the current two-year and four-year statewide targets established by GDOT.

GDOT established these two-year and four-year targets on May 16, 2018. Each MPO in Georgia then agreed to program projects to support the state's targets.

⁸ Beginning January 1, 2022, the UZA population threshold for this measure changes from one million to 200,000, and two-year and four-year targets must be set for both measures.

Table 5. Georgia System Performance/Freight Movement/CMAQ (PM3) Performance and Targets

Performance Measure	Baseline	2019 Actual	2-year Target (2019)	4-year Target (2021)
Percent of person-miles on the Interstate system that are reliable	80.2%	80.8%	73.0%	67.0%
Percent of person-miles on the non-Interstate NHS that are reliable	84.9%	86.5%	N/A	81.0%
Truck Travel Time Reliability Index	1.44	1.44	1.66	1.78
Annual hours of peak hour excessive delay per capita (PHED)	20.4 hours	18.9 hours	N/A	24.6 hours
Percent Non-SOV travel	22.8%	23.2%	22.1%	22.1%
CMAQ VOC Cumulative Emission Reductions	839.000 kg/day	215.992 kg/day	205.700 kg/day	386.600 kg/day
CMAQ NOx Cumulative Emission Reductions	1,594.000 kg/day	732.850 kg/day	563.300 kg/day	1,085.000 kg/day

During the target setting process in 2018, GDOT considered several factors and trends that influence performance of the PM3 measures. These include:

- From 2013 to 2016, VMT in Georgia had been increasing at a rate of 6.2 percent annually on rural facilities and 2.9 percent on urban facilities. Those rates have slowed to 3.8 percent and 1.1 percent, respectively, leading up to 2018.
- Economic trends in Georgia have trended upward in recent years. Non-farm employment grew annually at a rate of 2.9 percent, while the number of new housing permits issued grew at a 12.6 percent annual rate prior to 2016.
- Georgia's population has grown steadily at an annual rate of about 1.0 percent in recent years.

In September 2020, GDOT completed an assessment of PM3 performance for 2018 and 2019 (the first two years of the current performance period) for the mid performance period report to FHWA. As shown in Table 5, the percent of person-miles on both the Interstate and non-Interstate NHS that are reliable increased from 2017 to 2019, showing improved performance of the NHS system. During this same period, truck travel time reliability remained steady at 1.44. For these three measures, Georgia met the two-year targets and is on track to meet the four-year targets.

PHED decreased between the 2017 baseline and 2019, and the Percent of Non-SOV travel increased. Both trends represent increasing performance during the first two years of the performance period. Georgia met the two-year target for Percent Non-SOV travel and is on track to meet the four-year targets. FHWA does not require a two-year target for the PHED measure for this first reporting period. Georgia appears to be on track to meet the four-year PHED target.

Total VOC and NOx emission reductions from CMAQ projects for 2019 are higher than the two-year target, which signifies that CMAQ projects implemented in the state are performing better than expected. Georgia appears to be on track to meet the four-year emission reductions targets for both pollutants.

GDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. GDOT's planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically, the Georgia Statewide Freight and Logistics Action Plan and the 2021 SSTP/2050 SWTP:

The SSTP emphasizes three investment categories: statewide freight and logistics, people mobility in metro Atlanta, and people mobility in emerging metros and rural Georgia. Within each category, the SSTP identifies three type of investment strategies: foundational (taking care of our existing transportation system), catalytic (strategic expansion to support economic development), and innovation (position Georgia's transportation system for the future). The SSTP investment plan identifies the following priorities:

- **Operations** – GDOT's investment scenario plans to invest an average of \$362 million annually through 2050, which is more than 15 percent of its total budget. This includes \$40 million for SigOps Metro, \$54 million for SigOps Statewide, and \$268 million for other programs including SigOps maintenance, Highway Emergency Response Operators (HERO), Coordinated Highway Assistance and Maintenance Program (CHAMP), Transportation Management Center Floor Operations, and various ITS programs.
- **Capacity** – GDOT's investment scenario plans to invest an average of \$948 million annually through 2050, 40 percent of its total budget (note: this total does not include previous commitments to the Major Mobility Investment Program). This includes \$908 million for capacity programs and \$40 million on two new programs: a Freight Operations Lump Sum program, which is intended to strategically address freight-oriented operational problems that are smaller scale yet cannot be readily solved by other existing improvement strategies; and a Rural Development Lump Sum program, which is intended to support focused, rural capital and operations projects related to safety, innovation, and broadband buildout for transportation purposes.

GDOT's Statewide Freight and Logistics Action Plan defines the conditions and performance of the state freight system and identifies the policies and investments that will enhance Georgia's highway freight mobility well into the future. The Plan identifies freight needs and the criteria Georgia will use to determine investments in freight and prioritizes freight investments across modes.

The SSTP strategies focused on people mobility in metro Atlanta are expected to improve performance for the CMAQ congestion measures. In particular, the SigOps Metro improves traffic flow and reduces vehicle emissions through improved signal timing on Atlanta's busiest arterial roadways, and the HERO program provides roadside assistance to traffic-related incidents to clear roads so that normal traffic flow is restored. The SSTP also includes strategies related to promoting additional mobility choices and connections between modes to help manage growth in demand. GDOT will explore opportunities to coordinate on park-and-ride lots and other connections between GDOT roads and local and regional transit. GDOT also will continue to partner with Georgia Commute Options and service providers to assist customers, employers, and schools in reducing the number of single-occupant vehicles on metro Atlanta's roads. In addition, through the Major Mobility Investment Program GDOT is investing in capacity and reliability improvements to Interstate highways and other major facilities, including developing express lanes on several roads in the metro Atlanta area.

To support progress towards GDOT's statewide PM3 targets, the FY 2021-2024 STIP devotes a significant amount of resources to projects that will address passenger and highway freight reliability and delay, reduce SOV travel, and reduce emissions.

A total of \$3,329,616,068 has been programmed in the FY 2021-2024 STIP to address system performance; averaging approximately \$832,404,017 per year.

A total of \$1,735,815,247 has been programmed in the FY 2021-2024 STIP to address truck travel time reliability; averaging approximately \$433,953,812 per year.

A total of \$108,746,525 has been programmed in the FY 2021-2024 STIP to address congestion mitigation and air quality; averaging approximately \$27,186,631 per year.