

Appendix B. Performance Based Planning and Programming

To improve accountability and transparency, Congress passed the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act to promulgate performance measures and targets for the Federal-Aid Highway System.¹⁰ The FHWA enacted the System Performance Measure Final Rule, which establishes national performance measures for assessing performance for carrying out the National Highway Performance Program (NHPP).¹¹ Subsequently, the IIJA requires the state DOT and MPO to establish and use a performance-based approach to transportation decision-making. This includes tracking performance measures, setting data-driven targets for each measure, and selecting projects to help meet those targets. The IIJA also requires that the TIP include a description of its anticipated effect toward achieving the established performance targets, linking investment priorities to those performance targets.

The FHWA Performance Based Planning and Programming (PBPP) is accomplished by focusing on key outcomes related to seven national goals associated with three Performance Management (PM) Rules, as follows for reference.

- PM1 - Safety Performance
 - Safety
- PM2 - Pavement and Bridge Condition Performance
 - Infrastructure preservation
- PM3 - Travel Time and Freight Reliability Performance
 - Congestion reduction
 - System reliability
 - Freight movement and economic vitality
 - Environmental sustainability
 - Reduced project delivery delays

In addition to this, FTA also developed a series of performance targets associated with two rules, as follows.

- Transit Asset Management Performance
- Public Transportation Agency Safety Plan

¹⁰ As specified in 23 United States Code (USC) Part 150.

¹¹ As specified in 23 Code of Federal Regulation (CFR) Part 490.

Safety Performance Management Measure Rules

The purpose of the Safety Performance Management Measures Rule (PM1) is to establish performance measures and targets to support the national goals for the Federal-Aid Highway System by providing a metric for use in assessing fatalities and serious injuries.¹² The FHWA issued this rule to identify national transportation goals to establish performance measures and standards.¹³ Each of the targets below are established by the NJDOT for the calendar year 2023.

Safety

The safety targets are established annually by the NJDOT and MPO to uphold accountability and transparency as identified in the FAST Act, and MAP-21. The FHWA provides guidance for the [Transportation Performance Management \(TPM\)](#) policy and rulemaking. The PM1 rule requires State DOTs and MPOs to set annual targets for five safety-related performance measures with the understanding that reaching zero fatalities on all public roads will require time and significant effort. A target is defined as a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a set timeframe.¹⁴ The federal safety performance measures are consecutive five-year averages and include crashes on all public roads regardless of functional classification or ownership for the following as referenced.

- Number of fatalities
- Rate of fatalities per 100 million Vehicle Miles Traveled (VMT)
- Number of serious injuries
- Rate of Serious Injuries per 100 million Vehicle Miles Traveled (VMT)
- Number of non-motorized fatalities and non-motorized serious injuries

NJDOT set annual targets for the calendar year 2023, which it includes in its Annual Safety Report. The attached letter dated May 31, 2022, from NJDOT Commissioner Diane Gutierrez-Scaccetti to FHWA Division Administrator Robert Clark to document these targets. MPOs are required to establish targets 180 days after their state DOT by either establishing specific numeric targets for each measure for the MPO region or by agreeing to plan and program projects that support the attainment of the state targets. Extensive collaboration occurs each year between NJDOT, the New Jersey Division of Highway Traffic Safety (NJDOTS), DVRPC, NJTPA, and SJTPO, leading up to establishing New Jersey's annual statewide safety targets. Since SJTPO opts to participate in the extensive collaboration to set the targets, SJTPO elects to adopt the statewide safety targets. The Safety Performance Measure Targets for Calendar Year (CY) 2023 was adopted by the SJTPO Policy Board on September 26, 2022, under [Resolution 2209-28](#).

¹² As specified in 23 USC 150 & 23 Code of Federal Regulation (CFR) Part 490.

¹³ As specified in Section 1203 of MAP-21.

¹⁴ As specified in 23 Code of Federal Regulation (CFR) 490 (101).

To strengthen communication and coordination efforts, technical safety experts and planning staff from the MPOs and NJDOT meet regularly to discuss HSIP project advancement and Performance Measure Targets and Goals. FHWA determines whether a state has met or made significant progress towards its safety performance targets. A state is considered to have met or made considerable progress when at least four out of the five safety performance targets are met or the actual outcome for the safety performance target is better than baseline performance.

NJDOT Statewide Safety Targets and Goals

The 2019 to 2023 targets all reflect anticipated increases which are attributable to several issues. First, the COVID-19 pandemic had a major impact on driver behavior. During the pandemic's peak, vehicular traffic dropped significantly, reducing congestion. It is widely accepted that this had the effect of increasing driver speeds, as fatalities did not decrease even as volumes were down considerably. Fatalities increased sharply as volumes returned to normal, suggesting that while congestion returned, speeds did not fully normalize. In addition, bicycle and pedestrian activity increased sharply during the pandemic, which has primarily remained during the recovery. These have combined to result in an increase in crash activity. Finally, it is worth noting that beginning in 2019, the definition of serious injuries was changed on the New Jersey Police Crash Investigation Report forms (NJTR-1) to better adhere to Federal guidelines. That change is still reflected in the significantly increased number of serious injuries shown in the five-year targets. NJDOT provides the following guidance for the increase in the following.

Beginning in 2019, New Jersey updated the police crash report to be consistent with the federally required injury classifications (Killed, Suspected Serious Injury, Suspected Minor Injury, Possible Injury, and No Apparent Injury). As a result of this change, injuries not previously attributed to the serious injury classification are now included in this number. For example, a crash victim with a broken arm that would have previously been classified as a Moderate Injury is now classified as a Suspected Serious Injury. As a result, New Jersey saw an increase in reported serious injuries due to the changes in reporting. This large increase creates a challenge in predicting anticipated totals for future years as well.

The [Strategic Highway Safety Plan](#) (SHSP) is a five-year, data-driven, comprehensive multidisciplinary plan that supports statewide goals and objectives and integrates the five safety-related performance measures. The SHSP is driven by a vision that no deaths on New Jersey's roads are acceptable and sets a statewide goal to reduce serious injuries and fatalities by three percent annually. The SHSP identifies seven key safety emphasis areas, including Lane Departure, Intersections, Driver Behavior, Pedestrians and Bicyclists, and Other Vulnerable Road Users, with Data and Equity serving as overarching emphasis areas that are integral and interrelated to all areas. The SHSP also guides the allocation of safety funding and resources to reduce highway fatalities and serious injuries on New Jersey's public roadways. The goal of setting data-driven,

realistic, and achievable performance targets each year will help agencies better utilize their safety resources in ways that can result in the greatest reduction in fatalities and serious injuries over time. NJDOT and the MPOs in New Jersey adopted statewide targets, which have involved great coordination and analysis among these agencies. Safety stakeholders in New Jersey aim to reduce the number of fatalities, serious injuries, and non-motorized fatalities and serious injuries in New Jersey. The following table details New Jersey's statewide safety targets on a 5-year rolling average, and the second table provides annual details for the calendar year 2023.

Table 1: New Jersey's Statewide Safety Targets 5-Year Rolling Average

| Performance Measure | 5-Year Rolling Averages | |
|---|---|---|
| | Baseline CY 2017-2021 5-Year Rolling Average | Target CY 2019-2023 5-Year Rolling Average |
| Number of Fatalities | 606.6 | 669.4 |
| Rate of Fatalities per 100 million VMT | 0.814 | 0.906 |
| Number of Serious Injuries | 2,307.6 * | 3,079.6 |
| Rate of Serious Injuries per 100 million VMT | 3.132 ** | 4.178 |
| Number of Non-Motorized Fatalities and Serious Injuries | 656.4 ** | 848.2 |

* It is important to note that beginning in 2019, New Jersey updated the police report to be consistent with the federally required injury classifications – Killed, Suspected Serious Injury, Suspected Minor Injury, Possible Injury, and No Apparent Injury.

** The continued challenges posed by changes in the police crash report form and the COVID-19 pandemic have rendered previous injury trends and models ineffective, leading to challenges in developing data projections.

Table 2: New Jersey's Statewide Safety Targets for Calendar Year 2023

| Performance Measure | Annual | |
|---|------------------|----------------|
| | Baseline CY 2021 | Target CY 2023 |
| Number of Fatalities | 703 | 755 |
| Rate of Fatalities per 100 million VMT | 0.94 | 1.00 |
| Number of Serious Injuries | 3,166 | 3,132 |
| Rate of Serious Injuries per 100 million VMT | 4.25 | 4.16 |
| Number of Non-Motorized Fatalities and Serious Injuries | 897 | 892 |

Although New Jersey did not meet its calendar year 2020 targets due to the change in the definition of serious injury on the NJTR-1, New Jersey is still subject to penalties for not meeting its targets. As a result, NJDOT was required to develop an HSIP Implementation Plan, which was completed in June 2022 and evaluates the challenges in achieving the targets, and considers actions to achieve targets in coming years. In addition, New Jersey must dedicate all the state's allotment of HSIP funds directly to safety projects, losing the ability to flex a portion of those funds to other projects or programs. NJDOT has indicated that it did not meet its calendar year 2021 targets and will also commit to the same actions in 2023. This long-term safety vision requires time to change attitudes and behaviors and to construct infrastructure improvements that reduce the frequency and severity of crashes.

NJDOT and the MPOs are committed to directing resources to infrastructure-related safety strategies as they strive to drive down fatalities and serious injuries with an ultimate safety vision of zero deaths. While various federal funding sources other than HSIP funds can support safety goals, HSIP-funded projects must adhere to performance-based goals, focusing resources on areas of greatest need and potential for the highest rate of return on the investment of HSIP funds on all public roads. Projects that apply for these HSIP funds must undergo a Highway Safety Manual (HSM) analysis and include a benefit-cost analysis. These analyses are meant to demonstrate that the project will have a tangible safety benefit and that the benefit will exceed the construction cost.

Progression Towards Safety Targets

NJDOT develops an annual safety investment strategy for all HSIP funded activities and projects. The annual investment strategy demonstrates the linkage between the objectives of the SHSP and the projects being implemented to focus on effective safety improvements. SJTPO has made safety a central component of its work, as described in SJTPO's Regional Transportation Plan, [RTP 2050](#), which sets the direction for all SJTPO activities. One of the goals in the RTP is to improve transportation safety and includes the following strategies.

Promote and Advance Safety Countermeasures: Educate the public and stakeholders about the benefits of the FHWA Proven Safety Countermeasures, including roundabouts, road diets, and others that offer major safety benefits. Work to ensure these countermeasures are included in projects, as dictated by safety needs.

Safety in all Projects: Evaluate all transportation projects that receive funding through the SJTPO process to ensure they identify and address the safety needs of all roadway users. Utilize the updated Project Pre-Evaluation Screening process to consider crash history when evaluating all projects and utilize Network Screening Lists to identify locations for safety improvement.

Bicycle and Pedestrian Safety Projects: Work with regional partners to develop and prioritize projects that improve safety for bicyclists and pedestrians, both on the existing bicycle and pedestrian network as well as in all projects.

Reduce Barriers to Safety: Continue and expand state and regional partnerships to identify and reduce barriers to safety project advancement, including offering design assistance support to ensure projects reach construction.

Align Safety with State Priorities: Ensure that safety investments are aligned with priorities established with the state's SHSP, which was developed in collaboration with New Jersey's MPOs and other statewide partners.

Safety Outreach and Education: Improve the safety of roadway user behavior through the continued dissemination and development of safety education programs.

No Roadway Death is Acceptable: Guide all transportation decision-making to incorporate the Vision Zero philosophy, which states that any loss of life on roadways is unacceptable and preventable.

Consistent with this goal and supporting strategies, projects that meet safety goals have been and will continue to be programmed into the TIP. SJTPO's FFY 2024-2033 TIP includes a \$3.0 to \$4.0 million annual line item for HSIP-funded safety projects and programs, including DBNUM 04314 *Local Safety/High-Risk Rural Roads Program*. At the NJDOT Statewide and SJTPO regional levels, projects and programs are selected for HSIP funding in New Jersey to help significantly reduce traffic fatalities and serious injuries on all public roads to support safety targets. To be consistent with [RTP 2050](#) and to adhere to the objective of the New Jersey Local Safety Program, to significantly reduce and ultimately eliminate fatal and serious injury crashes, SJTPO follows a five-step, data-driven process to ensure the greatest potential safety benefit in the projects that are advanced for HSIP funding, including the following for reference.

Location Selection: Project locations must generally be selected in one of two ways: using the hotspot approach by choosing a location from one of several NJDOT-approved Network Screening Lists, which include corridors, intersections, high-risk rural roads, bicycle and pedestrian corridors, and bicycle and pedestrian intersections, or using the systemic approach, which identifies the risk, demonstrated by data, that exists in roadways with certain geometric traits and applies countermeasures at a series of locations based on the existence of those traits. SJTPO incorporates safety improvements based on hotspot and systemic approaches.

Problem Identification: A detailed analysis of a selected site's crash history is needed to understand the problem and ensure appropriate improvements are chosen. This analysis includes a look at the crash types, precise locations, and other traits, informed by a review of crash reports, which are ultimately summarized in detailed crash diagrams and tabular formats.

Road Safety Audits are a valuable tool in problem identification that brings together a multidisciplinary team to experience roadway issues and identify solutions.

Countermeasure Selection: Selecting an appropriate countermeasure to address the problems at a location is a key step in the process. Countermeasures must address the specific types of crashes for locations selected based on network screening. For a systemic approach, countermeasures must address the specific risk, demonstrated by data, that exists given certain geometric roadway features and are typically applied to a number of locations with similar geometric conditions. FHWA has studied and identified twenty-eight [proven safety countermeasures](#) that should be considered in all local safety projects. SJTPO continues to work with its subregions to promote the use of these proven safety countermeasures throughout the region.

Benefit-Cost Analysis: SJTPO uses the Highway Safety Manual (HSM) to evaluate the effectiveness of most safety improvements. The HSM evaluation is intended to ensure the identified safety improvement can be expected to demonstrate a data-driven safety benefit and ultimately determine if the benefit of the project will exceed its cost. This step is not applicable to systemic applications and is optional for bicycle and pedestrian projects.

Technical Committee Review: The final step is review by a Technical Review Committee (TRC), comprised of SJTPO and NJDOT staff, including Local Aid, Bureau of Environmental Resources, and Bureau of Safety, Bicycle, and Pedestrian Programs. In addition to reviewing applications for quality, the TRC assesses whether projects are shovel ready, and determines if there are any fatal flaws that require delaying the project.

The annual line item dedicated to HSIP-funded safety projects and programs via the Local Safety Program and High-Risk Rural Roads Program supports project advancement that is evaluated and prioritized based on the five-step, data-driven process detailed above to ensure the identified safety improvements are substantive, address the specific needs of the project site, and have a benefit that justifies the cost. More information about SJTPO's Local Safety Program can be found at www.sjtpo.org/HSIP. More information about New Jersey's Statewide Local Safety Program can be found in the New Jersey [Highway Safety Improvement Program Manual](#). In addition to the SJTPO Local Safety Program, NJDOT has several statewide programs that provide funding to improve safety throughout the State of New Jersey, such as the following.

Safety Programs (DB #19370) - \$14.25 million annual program (\$14 million HSIP/\$250,000 STATE) that provides funding to support eligible Safety Engineering Projects and Pedestrian Safety Improvement Projects, including engineering, right of way (ROW), and construction activities intended to reduce fatalities and serious injuries on New Jersey roadways.

Highway Safety Improvement Program Planning (DB #09388) - \$4 million annual program for Safety Management System (SMS) and Rail-Highway Safety Improvement projects. Through the

guidance of the HSIP identifies, prioritizes, and implements safety programs and projects associated with safe corridors and intersection improvement programs to reduce crashes and crash severity on New Jersey's roadways.¹⁵

Utility Pole Mitigation (DB #15344) - \$175,000 annual program that seeks to identify and mitigate locations with incidents of high recurring utility pole accidents throughout New Jersey.

Motor Vehicle Crash Record Processing (DB #X233) - \$2.5 million annual program that provides the in-house Crash Records unit with upgraded equipment and new methodology. The comprehensive crash record database includes driver/crash correlation, crash location, data for driver updates, and the database cleaning (correction) process.

Furthermore, NJDOT's **Rail Highway Grade Crossing Program** is intended to reduce the number and severity of train collisions with vehicles and pedestrians at public highway-rail grade crossings.

SJTPO recognizes that HSIP is not the only funding program that can impact safety. Many other TIP projects funded with federal non-HSIP funds will provide some safety benefits to the roadway system. Striping and signage associated with resurfacing, as well as guide rail and vegetation maintenance and bridge improvement projects, are all expected to provide safety improvements and help decrease fatal and serious injury crashes. However, SJTPO is actively working to ensure that all projects funded through the SJTPO process incorporate appropriate safety design elements, and for project locations that appear on an approved Network Screening List, include substantive safety measures that address the present safety issues. In addition to the above projects and programs, SJTPO is unique among MPOs for its extensive traffic safety outreach work. For twenty-five years, SJTPO has offered traffic safety outreach programs that educate drivers and others on how their behaviors can impact safety. SJTPO's traffic safety outreach work has grown. It includes partnerships with several organizations on programs that address different facets of safety. These programs and presentations include:

- **Belts on Bones** is a program designed for early elementary school students that teaches the importance of proper seat belt usage.
- **Belts, Bones, and Buses** is an elementary school program that is very similar to the Belts on Bones program with the added component of school bus safety, both on and off the bus.
- **Car Crashes – It's Basic Physics** is a high school program that teaches students about the crash dynamics and the physical impact of crashes on the body.

¹⁵ As specified in 23 Code of Federal Regulation (CFR) Part 924.

- **Car-Fit for Senior Drivers** is an American Automobile Association (AAA)/American Association of Retired Persons (AARP) program designed to provide a quick but comprehensive check of how well a driver and their vehicle work together.
- **Child Passenger Safety (CPS) – Car Seat Inspection Program** is a program that provides education for parents and caregivers on how to properly install a child restraint system in their vehicles.
- **Child Passenger Safety – Child Passenger Safety Technician Training** is a program that offers CPS Technician Certification status to individuals who successfully complete the course.
- **Child Passenger Safety – Restraint Systems on School Buses National Training** is a course for school district staff that addresses the proper use and installation of child seats on school transport vehicles.
- **Child Passenger Safety – Transporting Children Safely** is a course that covers the proper selection, direction, location, and installation of child seats, including tips and techniques for parents and caregivers to ensure their passengers are riding safely.
- **Defensive Driving** is a program suitable for drivers of all ages to help them understand the concept of “defensive driving,” which, in turn, will help reduce the likelihood of being involved in a crash.
- **Most Dangerous Place on Earth** is a high school program that covers the actual statistical likelihood of being involved in a crash and gives a realistic picture of the potential danger anyone faces when part of the traffic mixes.
- **Occupant Protection for Middle School Students** is a middle school program that provides an overview of crash dynamics and forces experienced during a vehicle crash and provides hands-on training in properly adjusting a seatbelt for maximum safety and comfort.
- **Share the Keys** is a high school program that works to educate parents and encourages active involvement with their teen drivers.

More information on these and other traffic safety outreach programs that SJTPO is involved in can be found at www.sjtpo.org/education.

Pavement and Bridge Condition Performance Measure Rule

The purpose of the Pavement and Bridge Condition Performance Measure (PM2) is to establish measures to use to carry out the National Highway Performance Program (NHPP) and assess the condition of pavement on the National Highway System (NHS), bridges including on- or off-ramps connected to the NHS, and pavement on the interstate system. The FHWA issued this rule to

identify national transportation goals to establish performance measures and standards.¹⁶ Each target below is for the Second Performance Period, which began on January 1, 2022, and extends through December 31, 2025.

Pavement Condition

The PM2 rule addresses infrastructure performance measures, including pavement and bridge performance on the NHS. The four pavement condition performance measures assess the entire NHS by lane mile percentage in both “good” and “poor” conditions. The performance measures are broken into separate interstate and non-interstate NHS values. The Statewide NHS includes roads owned and maintained by various entities, including NJDOT, which supports 62 percent of lane miles; various transportation authorities and commissions, which support 23 percent of lane miles; and counties and municipalities, which support 15 percent of lane miles.¹⁷ The FHWA calls upon state DOTs to establish targets, regardless of ownership, for the full extent of the interstate and non-interstate NHS. In addition to this, the MPOs must also establish targets, or support state targets, as SJTPO did. A general description of the metrics and methodology utilized by NJDOT is outlined as follows.

NJDOT Statewide Pavement Targets and Goals

NJDOT measured the condition of each tenth-mile pavement segment using various metrics depending on the type of pavement, including ride quality (using the International Roughness Index), rutting, cracking, and faulting. Three of these metrics apply to each type of pavement. Each segment was characterized as either “good,” “fair,” or “poor” for each of the applicable metrics, using criteria specified by FHWA. If a segment was rated as “good” for all three applicable metrics, the segment was considered to have “good” pavement condition. If a segment was rated as “poor” on two of the three applicable metrics, the segment was considered to have “poor” pavement condition. All other combinations of metric ratings were assigned a “fair” pavement condition. The four pavement condition performance measures were calculated by summing the lane miles in “good” and “poor” condition on the interstate segments and on the non-interstate NHS segments and dividing by the total number of lane miles on the interstate and non-interstate NHS, respectively.

NJDOT pavement subject matter experts utilized two data analysis methodologies to develop the 2- and 4-year pavement conditions targets. First, historical trends in pavement performance for each of the four pavement performance measures were analyzed using HPMS report card data for the years 2018 through 2021. The second approach was to use the performance of the NJDOT network projected by the pavement management system to project the performance of the NHS. Additional external risk factors were considered, including sustained elevated inflation, capital

¹⁶ As specified in Section 1203 of MAP-21.

¹⁷ [NJDOT TAMP: Fact Sheet](#). December 2022.

program uncertainties related to large investments in other program areas, supply chain issues affecting material and equipment availability, and a tight labor market. Each of these could negatively impact the NJDOT and other owners in the delivery of their planned infrastructure programs. However, opportunities were also considered, including increased federal funding from the Bipartisan Infrastructure Law (BIL). The analysis supported the 2-year target for 2024 and the 4-year target for 2026 for each measure, as depicted in the following table.

Table 3: New Jersey’s Statewide Pavement Baseline and Targets

| Measure | Baseline (2022) | 2-Year Target | 4-Year Target |
|---|-----------------|---------------|---------------|
| % Interstate pavement in good condition | 75.7% | 75.7% | 77.0% |
| % Interstate pavement in poor condition | 0.1% | 0.1% | 0.1% |
| % Non-interstate NHS pavement in good condition | 41.6% | 41.6% | 43.0% |

Progress Towards Pavement Targets

Over the last performance period, New Jersey has improved the interstate condition for both the “good” and “poor” performance measures. The targets set for interstate pavement conditions in the 2022-2025 performance period demonstrate New Jersey’s commitment to sustaining the improvements that have been made and continuing to maintain its infrastructure in a state of good repair. Both of these targets are consistent with the NJDOT’s long-range goals described in the TAMP and the Long-Range Plan of providing a safe, reliable roadway system, achieving and maintaining a state of good repair for transportation infrastructure assets, and establishing ongoing asset management as a data-driven process linking targets to outcomes through NJDOT performance-based planning and programming processes. The SJTPO Policy Board adopted this revised target at the Policy Board meeting on March 27, 2023, under [Resolution 2303-13](#).

Roadway maintenance is a major focus area of NJDOT’s Capital Investment Strategy (CIS). The [FFY 2013-2022 Statewide Capital Investment Strategy](#) called for more than \$260.0 million, approximately eight percent, of the annual investments to go towards road assets. Further, “Restore, Preserve, and Maintain the Existing Transportation System” is a goal of the [RTP 2050](#). It should be noted that most of the programmed money for the Local Lead projects, over which SJTPO has the most discretion, goes towards roadway resurfacing projects. Over the first four years from FFY 2024 to 2027 of the current FFY 2024-2033 TIP, \$50.1 million is made available to SJTPO through the Surface Transportation Block Grant Program (STBGP). NJDOT has programmed more than \$1.087 billion statewide for state-led roadway resurfacing projects, as listed in [Section 2](#), which are all on the NHS system. SJTPO remains committed to improving pavement conditions on roadways within its region and working with regional partners and NJDOT staff to develop roadway resurfacing projects that will inevitably improve pavement performance and help to meet these State targets.

Bridge Conditions

In addition to the pavement condition measures, the PM2 rule completes an assessment of bridge conditions. SJTPO relied upon NJDOT to calculate bridge condition metrics and supported NJDOT's Statewide targets. The two bridge condition performance measures assess the percentage of NHS bridges by deck area in both "good" and "poor" conditions. Note that NHS bridges include all bridges and culverts greater than 20 feet wide on NHS facilities, including on- and off-ramps connected to the NHS. Bridges that cross state borders are included in their entirety. Statewide, NHS bridges are owned and maintained by a variety of entities, including NJDOT, which support 47.4 percent by deck area; transportation authorities and commissions, which support 51.2 percent; and counties, municipalities, NJ TRANSIT, various other agencies, and private owners, which support 1.4 percent. A general description of the metrics and methodology utilized by NJDOT is outlined as follows.

NJDOT Statewide Bridge Targets and Goals

NJDOT reported the condition of various components of each NHS bridge to the National Bridge Inventory (NBI) on a scale of 0 to 9. The FHWA measure incorporates the condition of four NBI components: bridge deck, superstructure, substructure, and culvert, and rates each component as either "poor" (rating of 0, 1, 2, 3, or 4), "fair" (rating of 5 or 6), or "good" (rating of 7, 8, or 9). If a bridge receives ratings of "good" on all applicable components, the bridge is considered in "good" condition. If the bridge receives a rating of "poor" on any applicable component, the bridge is considered in "poor" condition. Any other combinations of ratings are considered a fair condition. It is important to note that a rating of "poor" does not correlate to the safety rating of the bridge. The bridge condition performance measures are calculated by summing the deck area of bridges in "good" and "poor" condition and dividing by the total deck area of all NHS bridges.

To compute the bridge condition performance targets for the second performance period, NJDOT has and will continue to rely on analysis of past trends by deck area for NJDOT-owned and non-NJDOT-owned bridges. For state-maintained NHS NBIS bridges, the NJDOT applied information on its own rehabilitation and replacement projects planned to be completed in the next two and four years. This information is obtained from the modified New Jersey Statewide Transportation Improvement Program (STIP) 2022-2031 and the New Jersey Transportation Capital Program (TCP) 2023, which has incorporated the Bipartisan Infrastructure Law (BIL) funds, and the FHWA-compliant New Jersey Transportation Asset Management Plan (TAMP). Target-setting for 2-year and 4-year is essentially a matter of two things: (1) projecting the performance for bridges with major projects that will be open to traffic and have NBI data collection complete by 2023 and 2025, respectively, and (2) projecting the deterioration from "good" to "fair" and "fair" to "poor" of bridges that are not having projects completed in the performance period. For bridges not owned by NJDOT (e.g., NJTA, SJTA, NJT), the NJDOT used available information on their capital plans, existing information on their webpage, performance analysis done by the agencies, and

the latest bridge data. The analysis supported the 2-year target for 2023 and the 4-year target for 2025 for each measure, as depicted in the following table.

Table 4: New Jersey’s Statewide Bridge Baseline and Targets

| Measure | Baseline (2021) | 2-Year Target | 4-Year Target |
|--|-----------------|---------------|---------------|
| % NHS bridge deck area in good condition | 21.3% | 21.3% | 23.0%^ |
| % NHS bridge deck area in poor condition | 6.6% | 6.6% | 6.0%^ |

* The four-year targets are adjustments from the original 4-year targets set in October 2018.

Progress Towards Bridge Targets

NJDOT observes a slow downward trend in the deck area of state-maintained bridges classified as “good” due to the aging bridge population. Despite an enhanced commitment to bridge preservation as expressed in its TAMP, it could not expect the preservation program to outpace deterioration on bridges classified as “good” within two years. However, due to the completion of major projects statewide, there will be an increase in the percentage of “good” bridges from the baseline in the fourth year.

Despite its increased emphasis on preservation for state-owned bridges as expressed in the 2019 TAMP and the 2022-2031 STIP, NJDOT projects that the deck area rated “good” on state-owned bridges will remain as level as baseline in the next two years and improve in four years. NJDOT’s influence on the percent “good” performance is constrained by the fact that state-maintained bridges account for 12 percent of deck area rated “good” in 2021 on NHS bridges statewide, and about 1.45 million square feet of state-maintained NHS deck area has moved from “good” condition to “fair” condition over the last two years (2020 and 2021). Also, the projected addition to “good” percent was reduced due to project delays in the Lincoln Tunnel Access Program (LTAP). The LTAP is an extensive and complex project, which includes the Pulaski Skyway Rehabilitation project and with substantial outside funding, making it subject to large swings in performance measures.

The targets for percent “poor” indicate slow progress towards the national performance goal for NHS bridges in a state of “good” repair and for the NJDOT state of good repair objective for the NHS to have no more than 5 percent “poor.” The first performance period originally had targets that projected a steady state of 6.5 percent “poor” for the period until the unexpected deterioration of a substantial NJTA bridge to “poor” raised the NHS percent “poor” to 6.8. Based on the last performance trends, NJDOT projects a slight decrease in the percent of “poor” bridges for the second performance period. NJDOT targets for the calendar year 2023 deck area “poor” at 6.6 percent, the same as the 2021 baseline of 6.6 percent. However, the target for the calendar year 2025 of 6 percent shows improvement from the baseline. The four-year target represents progress towards the state and national goals, reflecting asset management principles’ application to its bridge management planning. More than \$3.85 billion statewide is

programmed in the current FFY 2024-2033 TIP for bridge construction repair and maintenance projects. Most of these projects are on state highways, as listed in [Section 2](#), along with numerous others.

The Performance Targets for Pavement and Bridge Conditions for the Second Performance Period was adopted by the SJTPO Policy Board on March 27, 2023, under [Resolution 2303-13](#). Moving forward, SJTPO remains committed to improving bridges within its region and working with county and city partners and NJDOT staff to identify critical bridges needing improvements that will help meet these targets.

Travel Time and Freight Reliability Performance Measure Rule

The purpose of the Travel Time and Freight Reliability Performance Measure (PM3) is to establish measures to address the variability of travel time and freight movement on interstate and non-interstate segments on the National Highway System (NHS) to carry out the National Highway Performance Program (NHPP), as well as assess traffic congestion and on-road mobile source emissions to carry out the Congestion Mitigation and Air Quality (CMAQ) improvement program. The FHWA issued this rule to identify national transportation goals to establish performance measures and standards.¹⁸ Each target below is for the Second Performance Period, which began on January 1, 2022, and extends through December 31, 2025. The PM3 rule also includes a discussion subsection summarizing PM1, PM2, and PM3.

Travel Time Reliability

The roadway segment travel time reliability refers to reliability as the variability of travel times on road segments experienced by travelers. The less variability there is for any given set of roadway segments, the more reliable those segments are. Travel time reliability does not mean eliminating traffic congestion but reducing its extremes to maintain consistent traveler expectations. The measures for Travel Time Reliability are the percentage of person-miles traveled (PMT) on the interstate on the NHS with reliable travel times and the percentage of PMT on the non-interstate NHS with reliable travel times. The measures are calculated using the Level of Travel Time Reliability metric, defined as the ratio of the longer travel times in the 80th percentile to a “normal” travel time in the 50th percentile.

NJDOT Statewide Travel Time Reliability Targets and Goals

Travel time reliability is assessed using archived real-time vehicle probe data contained in the National Performance Management Research Data Set (NPMRDS) and calculated with the

¹⁸ As specified in 23 Code of Federal Regulation (CFR) Part 490.

assistance of the Probe Data Analytics Suite. The Probe Data Analytics Suite was created and is maintained by the University of Maryland Center for Advanced Transportation Technology Laboratory, following FHWA guidance. Only current and some historical data is available through the Probe Data Analytics Suite – forecasts for these measures are not. The NJDOT Complete Team (consisting of planning and operations staff from NJDOT, the three New Jersey MPOs, NJ TRANSIT, PANYNJ, NJTA, and FHWA-NJ) had several meetings to discuss the underlying data, calculation tools, methods, baseline results, and target-setting approaches. The analysis supported the 2-year target for 2024 and the 4-year target for 2026 for each measure, as depicted in the table below. The established targets are consistent with the goals and expectations documented in the NJDOT's long-range plans, investment strategy, and capital program.

Table 5: New Jersey's Statewide Travel Time Reliability Baseline and Targets

| Measure | Baseline (2022) | 2-Year Target | 4-Year Target |
|--|-----------------|---------------|---------------|
| % PMT on Interstates NHS with reliable travel times | 94.0% | 82.0% | 83.0% |
| % PMT on non-Interstate NHS with reliable travel times | 92.2% | 85.0% | 86.0% |

Progress Towards Travel Time Reliability Targets

The traffic pattern in 2020 and 2021 was different than normal due to the effects of the COVID-19 pandemic. The reliability numbers were unusually high during the pandemic as fewer people were on the road. While setting the targets for future years, more emphasis was given to the trends based on pre-pandemic performance while considering the possible effects of future changes on traffic trends and patterns due to the pandemic. The current actual 4-year condition is derived from the latest data collected for 2021, the last year of the full performance period. The data reported in the PDA Suite is 94 percent, higher than the 4-year target of 82.0 percent set in 2018. This is the effect of the decisions and/or investments that contributed to the actual Performance and unexpected changes in travel patterns due to the COVID-19 pandemic, as described above.

NJDOT and NJ TRANSIT sponsor numerous statewide programs that improve travel time reliability. SJTPO remains committed to improving roadways reliability within its region and working with regional partners and NJDOT staff to develop projects that will improve travel time reliability, and help meet these state targets. In addition to the statewide projects and programs mentioned, SJTPO has programmed and is planning several local CMAQ-funded congestion relief projects within the region led by subregional partners.

While congestion and reliability are related, they are not the same thing. Traffic congestion occurs when the amount of traffic (travel demand) far exceeds the system's physical capacity,

generally measured by the number of travel lanes on the roadway, the number of intersections, access points, and numerous other factors. Reliability is used in reference to the level of consistency in the transportation service provided by a roadway. For example, a roadway can be heavily congested, but if the amount and time of day when the congestion occurs on it is consistent, it is considered reliable. The USDOT established performance measures pertaining to reliability because empirical evidence exists to suggest that the traveling public values reliability more than straight travel times. The [Traffic Congestion and Reliability: Linking Solutions to Problems](#) is available on the FHWA website. The PM3 for Travel Time and Freight Reliability Management for the Second Performance Period, was adopted by the SJTPO Policy Board on March 27, 2023, under [Resolution 2303-14](#).

Freight and Truck Travel Time Reliability

The national performance measure for freight is the Truck Travel Time Reliability (TTTR) Index (TTTRI). This measure is like the “Travel Time Reliability” measure and metric described above, but it is focused primarily on truck traffic. TTTR is the ratio between the “longest” in the 95th percentile and the “normal” in the 50th percentile for truck travel times. This metric is averaged for all interstate road segments in the state, weighted by distance, resulting in the TTTR Index for the state. Unlike the travel time reliability measures, there is no “threshold” that determines whether a segment is reliable or unreliable for trucks.

NJDOT Statewide Truck Travel Time Reliability Targets and Goals

The Truck Travel Time Reliability performance measure was calculated using the University of Maryland Center for Advanced Transportation Technology Laboratory NPMRDS Analytics Suite tool but uses travel times specifically reported from trucks. Furthermore, as with the previous measures, the NJDOT Complete Team had several meetings to discuss the underlying data, calculation tools and methods, baseline results, and target-setting approaches. Again, long-term policies for the agencies support improvements to freight reliability. The analysis supported the 2-year target for 2024, and the 4-year target for 2026 for the measure as depicted in the below table. The 2-year and 4-year targets for the current performance period are established based on the following factors.

- Trends from past years are based on the NPMRDS for all NHS roadways
- Significant decrease in TTTRI numbers during the COVID-19 pandemic
- Slight decrease in population over the past two years while the long-term trend is positive
- Monthly comparisons to previous years
- Long-term growth in electric commerce
- Statewide Freight Plan - existing condition

Table 6: New Jersey's Statewide Truck Travel Time Reliability Baseline and Targets

| Measure | Baseline (2022) | 2-Year Target | 4-Year Target |
|-------------------------------------|-----------------|---------------|---------------|
| Truck Travel Time Reliability Index | 1.56 | 1.90 | 1.95 |

Progress Towards Truck Travel Time Reliability Targets

As the 4-year target from the first performance period was 1.95, and the actual 4-year condition was 1.56, the 4-year target was met. In 2017, NJDOT released its [State Freight Plan \(SFP\)](#), which had “Improve Reliability and Efficiency,” as one of its goals. As of this date, this is the latest approved freight plan. The plan provided a well-defined blueprint for NJDOT investment, identifying discrete projects that immediately address critical freight system improvements. It also includes a fiscally constrained Freight Investment Plan (FIP) that identifies and prioritizes freight-related transportation projects. In June of 2021, NJDOT began the process to develop the FY 2022 Statewide Freight Plan (SFP). The upcoming plan is anticipated to include multimodal transportation, infrastructure improvements, highway planning, as well as support state and regional planning goals, and planning partners and freight stakeholders. In addition to the SFP, NJDOT is spearheading numerous initiatives to improve infrastructure conditions for goods movement in New Jersey, including the following.

- Freight Management System
- Freight Performance Measures
- Truck Monitoring Program

SJTPO has been an active participant in the NJDOT Freight Advisory Committee and served on the stakeholder committee to develop the SFP. In addition to this, as part of the [RTP 2050](#) goal of supporting the regional economy, SJTPO strives to work with regional partners to evaluate truck routes and other critical freight corridors for accessibility, reliability, safety, and other system performance measures to develop and prioritize projects. SJTPO promotes and supports projects that improve goods movement in the region.

The SJTPO Regional Freight Plan Data Collection and Analysis technical study was completed in FY 2022. This work was a two-year study in the [SJTPO FY 2021 UPWP](#). The study supported regional freight planning by collecting and analyzing freight data. The project scope included identifying major freight generators in the local and state regional freight network. The study also included a data-driven performance-based analysis that identified freight network issues that would benefit from infrastructure investments. The study was Phase I of the SJTPO Freight Plan development. Phase II is completing the SJTPO Regional Freight Plan, which is being conducted during FY 2023 and 2024.

Several grant programs outside of SJTPO are administered by the state and the federal government, specifically targeting freight. A prominent one is the [Local Freight Impact Fund](#), a recent program established by NJDOT to assist counties and local municipalities with mitigating

impacts on the local transportation system associated with the State's freight industry. The [Rebuilding American Infrastructure with Sustainability and Equity](#) (RAISE) grant program selected projects through consideration of safety, environmental sustainability, quality of life, economic competitiveness, State of Good Repair (SGR), innovation, and partnership. The PM3 for Travel Time and Freight Reliability Management for the Second Performance Period was adopted by the SJTPO Policy Board on March 27, 2023, under [Resolution 2303-14](#).

Congestion Mitigation and Air Quality Emission and Congestion Measure

The PM3 rule supports the CMAQ improvement program by assessing traffic congestion and on-road mobile source emissions. The congestion reduction measure and metric apply to the SJTPO region since it is part of a metropolitan planning area that overlaps the boundary of an urbanized area with a population of more than one million in population. The SJTPO region overlaps with the Philadelphia, PA-NJ-DE-MD Urbanized Area, which has a 5.6 million population in eastern Salem County, including Salem County, Pennsville, and Carney's Point, and western Atlantic County, including Collings Lakes. In addition to this, the Atlantic City, NJ Urbanized Area (AC UZA) has a population over 200,000, and lies entirely in the SJTPO region. Due to this, CMAQ congestion performance targets must be established in the Philadelphia PA-NJ-DE-MD Urbanized Area and the AC UZA for the second performance period. The emissions reduction measure and metric apply to the SJTPO region since it falls within an urbanized area that is classified as "moderate" for ozone. Since the SJTPO region overlaps with the Philadelphia, PA-NJ-DE-MD Urbanized Area and the AC UZA, CMAQ mobile source emissions performance targets must be established in the SJTPO region for the second performance period.

NJDOT Statewide CMAQ Congestion Reduction Targets and Goals

SJTPO and all the other entities encompassing the Philadelphia, PA-NJ-DE-MD Urbanized Area must establish a single unified target for each of these measures. In addition to the Philadelphia, PA PA-NJ-DE-MD Urbanized Area, the SJTPO region contains the AC UZA, which, as of 2021, has a population of 274,296 people.¹⁹ For the second performance period, urbanized areas over 200,000 persons must develop CMAQ congestion measures. As such, in addition to performance measures and targets for the Philadelphia Urbanized Area, CMAQ congestion targets for the AC UZA are required beginning in the second performance period. Pursuant to the IIJA and MAP-21, the State DOT and MPOs must establish a single unified target for annual hours of Peak Hour

¹⁹ Congestion Mitigation & Air Quality Baseline Report and Performance Plan. September 2022.

Excessive Delay (PHED) per capita and the percent of Non-Single Occupancy Vehicle (Non-SOV) travel.²⁰ The definitions of the metrics are as follows.

- **Peak Hour Excessive Delay:** The Peak Hour Excessive Delay (PHED) measure indicates the extra time spent traveling due to congestion, expressed as the number of hours per year on a per capita basis. The threshold for the excessive delay is based on the travel time at 20 miles per hour or 60 percent of the posted speed limit travel time. The greater value is measured in 15-minute intervals. The metric used to calculate the target measures is Annual Hours of PHED per capita on the National Highway System (NHS). The actual rule containing all the details can be found at [23 CFR 490 \(707\)\(a\)](#).
- **Percent Non-Single Occupancy Vehicle:** The Non-Single-Occupancy Vehicle (SOV) Travel measure indicates the number of persons using a travel mode that includes walking, bus, carpool, train, bicycle, taxi, rideshare, and work at home, and excluding those using single-occupancy vehicles. The metric utilized is the Percent of Non-SOV Travel in the urbanized area. The actual rule containing all the details can be found at [23 CFR 490 \(707\)\(b\)](#).

Philadelphia, PA-NJ-DE MD Urbanized Area CMAQ Congestion Reduction Targets and Goals

To set the targets for the Philadelphia, PA-NJ-DE-MD Urbanized area, SJTPO staff was part of a team spearheaded by DVRPC that worked closely with multiple agencies in developing realistic targets for each of these two measures, including NJTPA, NJDOT, Pennsylvania Department of Transportation (PennDOT), Delaware Department of Transportation (DelDOT), Maryland Department of Transportation (MDOT), Wilmington Area Planning Council (WILMAPCO), and the Lancaster County Transportation Coordinating Committee (LCTCC), all of which comprise this urbanized area. The PHED per capita target supports the DVRPC 2050 Long-Range Plan and NJDOT's transportation goals of increasing mobility and reliability while reducing congestion and person vehicle miles traveled. DVRPC will continue to promote and develop projects and programs for its counties and planning partners to reduce excessive delay and invest in projects with air quality benefits. The Percent Non-SOV target developed for the Philadelphia, PA-NJ-DE-MD Urbanized Area also supports the DVRPC 2050 Long-Range Plan and NJDOT's goals of maintaining a safe, multimodal transportation network that serves everyone. American Community Survey (ACS) data was used to develop the percent Non-SOV baseline and targets in the table below.

²⁰ As specified in 23 Code of Federal Regulation (CFR) Part 490.

Table 8: SJTPO Congestion Reduction Baseline and Targets for the Philadelphia UZA

| PHED Per Capita | |
|----------------------|--------------------------|
| Baseline | 13.1 person hours/capita |
| 2-Year Target (2023) | 15.2 person hours/capita |
| 4-Year Target (2025) | 15.1 person hours/capita |
| Non-SOV Travel | |
| Baseline * | 30.6% |
| 2-Year Target (2018) | 30.0% |
| 4-Year Target (2020) | 30.0% |

* Based on the 2016-2020 ACS.

Atlantic City, NJ Urbanized Area CMAQ Congestion Reduction Targets and Goals

For the AC UZA, similar to the Philadelphia Urbanized Area, SJTPO staff worked closely with multiple agencies to develop realistic targets for these two measures. It established an AC UZA Coordination Group, consisting of SJTPO, NJDOT, Atlantic County, Cape May County, and Atlantic City, with participation from NJTPA and DVRPC, all of which comprise this UZA. The targets for the AC UZA were based mainly on existing trends, which depict an overall decline in PHED since 2017 (the first year the RITIS tool utilized by the SJTPO reported the PHED measure), except for an uptick from 2020 to 2021, which most considered an anomaly due to the pandemic induced lockdown.

Table 9: SJTPO Congestion Reduction Baseline and Targets for the Atlantic City UZA

| PHED Per Capita | |
|----------------------|-------------------------|
| Baseline | 6.1 person hours/capita |
| 2-Year Target (2023) | 6.3 person hours/capita |
| 4-Year Target (2025) | 6.2 person hours/capita |
| Non-SOV Travel | |
| Baseline * | 25.4% |
| 2-Year Target (2023) | 24.1% |
| 4-Year Target (2025) | 23.7% |

* Based on the 2016-2020 ACS.

Progress Towards CMAQ Congestion Reduction Targets

As with many of the previous performance measures and targets, the four-year performance was in part affected by COVID-19 impacts on travel patterns, such as more people working from home who previously drove to work, contributing to reductions in annual hours of PHED per capita, increases in non-SOV travel as well as reductions in transit ridership, contributing to decreases in non-SOV travel. In both the Philadelphia and Atlantic City Urbanized Areas, various programs and

projects were programmed with the intention of reducing excessive delay. There were also programs implemented by the TMAs within the urbanized areas to encourage everything but driving alone to reduce some excessive delay. For the Philadelphia Urbanized Area, the 4-year target for PHED was 17.2, and the 4-year performance was 13.1 percent, which indicates that the PHED goal was achieved. For the percent non-SOV travel, the four-year target was 28.1 percent, while the 4-year performance was 30.6 percent, indicating the percentage non-SOV target was also achieved. The goal is to continue to program congestion reduction projects to reduce excessive delay and increase non-SOV travel through projects, such as transit, pedestrian, and bicyclist improvements.

Like the roadway maintenance project, congestion relief is another major focus area of NJDOT's Capital Investment Strategy (CIS). Per the [FY 2021-2022 Statewide Capital Investment Strategy](#), almost \$480 million (approximately 15 percent) of annual capital investments went towards congestion relief projects. Furthermore, "Mitigate Traffic Congestion and Promote Efficient System Operation" is a goal in SJTPO's RTP 2050. SJTPO receives \$1.9 million annually of CMAQ funds for local projects. One project was approved for CMAQ funding on NHS roadways – Roosevelt Blvd/34th Street Advanced Traffic Signal Project in Cape May County (\$500,000 in FFY 2024). Much of the congestion within the SJTPO region occurs on state-owned and maintained highways, which are part of the NHS. NJDOT has invested a significant number of resources in congestion relief programs Statewide.

In addition to the CMAQ program described above, as part of the Congestion Management Process (CMP), using the Probe Data Analytics Suite, SJTPO generates a list of the top ten bottlenecked locations for both state and authority roadways, as well as county and local roadways. This list is part of the updated CMP Report, located at www.sjtpo.org/CMP. PHED Per Capita and Non-SOV Travel congestion baseline measures and targets for both the Philadelphia PA-NJ-DE-MD Urbanized Area and the Atlantic City, NJ Urbanized Area, were approved by the SJTPO Policy Board on July 25, 2022, under [Resolution 2207-25](#) and [Resolution 2207-26](#).

NJDOT Statewide CMAQ Emissions Reduction Targets and Goals

The SJTPO region falls within the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE 8-Hour Ozone Nonattainment Area under the 2015 standard of 0.070 parts per million (ppm) (70 parts per billion (ppb)). Under the 2015 8-hour ozone standard, the SJTPO region was recently reclassified as a "moderate" 8-hour Ozone Nonattainment area. Since a portion of the 8-Hour Ozone Nonattainment Area within the SJTPO metropolitan planning boundary overlaps with the Philadelphia, PA-NJ-DE-MD Urbanized Area with a population of approximately 5.6 million, it is subject to this requirement. The SJTPO region also includes the AC UZA. SJTPO is required to set targets for congestion measures due to new guidance and regulations for the second performance period. Guidance from FHWA states that urbanized areas with a population between 200,000 and one million, or exceeding one million in population, require congestion

measure targets and require an MPO to establish quantitative 2-year and 4-year targets for the CMAQ emissions reduction measures.²¹ Since the AC UZA has a population of 274,966 people, it is required to compute emission reduction performance targets.

SJTPO is required to set targets for pollutant emissions reductions from CMAQ projects. Separate emissions reduction targets are required for each pollutant, or precursor, for which a region is in nonattainment or maintenance. For the SJTPO Region, the required pollutants are the ozone precursors Nitrogen Oxides (NO_x) and Volatile Organic Compounds (VOC), in kilograms (kg) per day or per year, along with the expected lifespan of the emissions reduction. Carbon monoxide (CO) and particulate matter (PM_{2.5}) are not required to be reported by SJTPO as the region meets the National Ambient Air Quality Standards (NAAQS) for these pollutants. The required emissions reduction targets identify the amount of pollutant emissions (in kilograms per day, or kg/day) estimated to be reduced by CMAQ-funded projects within the corresponding nonattainment or maintenance area(s), summed over the applicable fiscal year. The 2-year target represents the emissions reductions from CMAQ projects that will be first authorized within FFY 2022 and FFY 2023, while the 4-year target represents the emissions reductions from CMAQ projects that will be first authorized within FFYs 2022, 2023, 2024, and 2025. The methodology for forecasting these targets is agreed upon by the New Jersey Department of Environmental Protection (NJDEP), New Jersey Transit (NJT), NJDOT, and the three MPOs in New Jersey, including SJTPO. The estimated baseline and targets for the SJTPO region are in the following table.

Table 10: SJTPO Emissions Reductions Baseline and Targets

| Federal Fiscal Year | Total Emissions Benefits Projections (kg/day) | |
|---------------------|---|-----------------|
| | VOC | NO _x |
| 2-Year Baseline | 8.38 | 79.51 |
| 4-Year Baseline | 9.68 | 84.53 |
| 2022 Target | 0.37 | 1.22 |
| 2023 Target | 0.36 | 1.12 |
| 2024 Target | 0.34 | 1.03 |
| 2025 Target | 0.32 | 0.94 |
| 2-Year Target | 0.73 | 2.33 |
| 4-Year Target | 1.39 | 4.30 |

* No CO or PM_{2.5} is reported as SJTPO meets the NAAQS for these pollutants.

** The total emission reduction projections include 8 percent of benefits from statewide projects.

²¹ As specified in 23 Code of Federal Regulation (CFR) Part 490 & 23 Code of Federal Regulation (CFR) Part 450.

The three MPO-level baselines covering the previous four federal fiscal years and targets covering the State of New Jersey were added together to create the statewide baseline and targets, as depicted in the table below. These were included in the State Biennial Baseline Performance Report for the Second Performance Period from 2022 to 2025, which was submitted by NJDOT to FHWA on March 3, 2023. The VOC and NOx measure by MPO and summary are below.

Table 11: CMAQ Emissions Performance Measures by MPO

| | VOC | | | NOx | | |
|----------------|-------------------|---------------|---------------|-------------------|---------------|---------------|
| | Baseline (4-year) | 2-Year Target | 4-Year Target | Baseline (4-year) | 2-Year Target | 4-Year Target |
| SJTPO | 9.680 | 0.730 | 1.390 | 84.530 | 2.330 | 4.300 |
| DVRPC | 73.592 | 2.844 | 5.406 | 683.827 | 9.506 | 17.495 |
| NJTPA | 95.904 | 8.394 | 15.958 | 803.960 | 22.528 | 41.425 |
| Summary | 179.176 | 11.958 | 22.740 | 1572.321 | 34.367 | 63.218 |

Progress Towards CMAQ Emissions Reduction Targets

Improving air quality is part of the overarching goal to protect and enhance the environment and complement land use planning included in the [RTP 2050](#). SJTPO is required to ensure all of the projects embodied in the TIP conform to National Ambient Air Quality Standards (NAAQS). SJTPO does this via the formal conformity determination process, which involves running a complex model to ensure that future projected emissions fall below federally mandated emissions budgets.

Beyond the air quality conformity process, pursuant to Federal Performance Management Regulations, SJTPO is responsible for preparing a CMAQ Performance Plan, which details the baseline emissions reduction conditions and the targets and how future planned projects will help the SJTPO region meet its targets.²² The [SJTPO Baseline Report](#) was submitted as part of the NJDOT Baseline System Performance Report for the 2022-2025 Performance Period to the USDOT in March 2023. In addition, the [SJTPO Final Report and Performance Plan](#) were completed in October 2022 for the first performance period (2018-2021). It included an updated list of projects and their status. As noted in the Final Performance Report, the SJTPO region achieved its emission goals, exceeding expectations for the Percent Non-SOV travel measure 2-year and 4-year targets set in 2018 and the On-Road Mobile Source Emissions measure. This was achieved through shared benefits of Statewide projects implemented by NJDOT and NJ TRANSIT, in addition to SJTPO-funded CMAQ projects. The CMAQ-funded projects that SJTPO anticipates will help the region meet its CMAQ mobile source emissions target, and their funding status are in the table below. Many of these projects have congestion and air quality benefits, which helps

²² As specified in 23 Code of Federal Regulation (CFR) Part 490 (107)(c)(3).

meet the congestion reduction target. For more information on current and upcoming projects, visit www.sjtpo.org/cmaq. The Mobile Source Emissions Reduction targets were approved for the SJTPO region on September 26, 2022, under [Resolution 2209-29](#).

Table 12: Projects Utilizing Federal CMAQ and CRP Funds

| DBNUM | Project Name | Project Category | Sponsor | Funding Status |
|-------|---|--|-----------------|--|
| X065 | Pacific Avenue Traffic Signal Optimization and ITS Improvements | Congestion Reduction and Traffic Flow Improvements | Atlantic City | Construction is anticipated for FFY 2024 |
| S2319 | Cape May County Microtransit Feasibility Study | Congestion Reduction and Traffic Flow Improvements | Cape May County | Study is anticipated for FFY 2024 |

In addition to the Local CMAQ Program, the Carbon Reduction Program (CRP) was established under Section 11403 of the IIJA to provide funding for projects that reduce transportation emissions from on-road highway sources through carbon dioxide (CO₂) emission reduction strategies and by funding projects designed to reduce transportation emissions.

Under the guidance of the MPOs, local projects will be developed that will reduce carbon emissions. Project eligibility includes the establishment or operation of traffic monitoring, management, and control facilities or programs, advanced truck stop electrification systems, advanced transportation and congestion management technologies, development of infrastructure-based intelligent transportation systems capital improvements, installation of vehicle to infrastructure communications equipment, replacement of street lighting and traffic control devices with energy-efficient alternatives, development of a carbon reduction strategy, and retrofitting of Dedicated Short Range Communication (DSRC) technology. The CMAQ and CRP projects are completed in a three-year joint solicitation period, most recently completed over FFY 2025, 2026, and 2027. For SJTPO, the suballocation of funding is divided into three urbanized areas: the Atlantic City urbanized area and the Villas and Vineland areas, with an estimated total funding amount of \$0.9 million annually. For more information on current and upcoming projects, visit www.sjtpo.org/carbonreduction. In addition to the CRP and the Local CMAQ Program, NJDOT and NJ TRANSIT have several Statewide programs that utilize CMAQ funding to reduce emissions and congestion, such as the following.

Bicycle & Pedestrian Facilities/Accommodations (DB #X185) – This is a comprehensive program to ensure the broad implementation of the Statewide Bicycle and Pedestrian Master Plan, Complete Streets Policy, and the implementation of federal and state policies and procedures on bicycle, pedestrian, transit, and ADA access and safety. This program includes addressing bicycle, pedestrian, transit, and micro-mobility travel needs through the development of improvements on state, county, and local roadways either by inclusion in existing capital projects, development of independent projects, or through assistance to counties and municipalities. Projects must

accommodate the needs of all travelers. Funding is provided annually in an estimated amount of \$1.5 million in CMAQ, \$1.0 million in STATE, and \$1.5 million in TA Set-Aside, or FLEX.

Intelligent Traffic Signal Systems (DB #15343) – This program will seek to improve mobility on New Jersey’s arterial highways. Arterials contribute almost 70 percent of the total congestion that occurs in New Jersey. This program will focus on dynamically managing New Jersey’s arterials from NJDOT’s Arterial Management Center. Existing traffic signals will be strategically, systematically, and programmatically upgraded from stand-alone signals to highly sophisticated, coordinated, real-time traffic response traffic signals. This upgrade will include installing new controllers, intelligent software, algorithms, robust detection, and communication. Most of the traffic signal upgrades will take place on NJDOT-owned highways. Funding is provided annually in a ranged estimated amount from \$8.0 million to \$15.0 million.

Rail Rolling Stock Procurement (DB #T112) – This program provides funds for the replacement of rail rolling stock, including engineering assistance and project management, to replace over-aged equipment, including rail cars, revenue service locomotives, and expansion of NJ TRANSIT rolling stock fleet to accommodate projected ridership growth and other system enhancements as well as support vehicles and equipment for rail operations. Annual funds are provided for Comet V single-level car, Electric Locomotive, Diesel Locomotive, Dual Power Locomotives, Multi-Level rail car lease payments, and pay-as-you-go funding for Multi-Level vehicles and other rolling stock. Funding is provided annually from CMAQ, STATE, SECT 5307, and SECT 5337.

Small/Special Services Program (DB # T120) – Funding is provided for NJ TRANSIT efforts that initiate or promote transit solutions to reduce congestion, manage transportation demand, and improve air quality. This program includes state funds for the Vanpool Sponsorship Program, Transportation Management Association Program, and federal funds for East Windsor Community Shuttle operating support, as well as the capital acquisition/operating expenses for the Community Shuttle Program, Bike/Transit facilitation, and other activities that improve air quality and help reduce congestion. This project receives \$0.096 million annually from the STATE.

Small/Special Services Program (DB # T120) – This program funds the purchasing of small buses or van-type vehicles for agencies that serve older adults and persons with disabilities. This program was formerly known as the Section 16 Program. The state provides MATCH funds. Funding is provided annually from STATE, CMAQ 5310, and SECT 5310.

Beyond the projects listed above, SJTPO will continue to select projects and programs that have a positive air quality benefit in terms of reducing mobile source emissions. SJTPO will also continue to promote and develop projects and programs with air quality benefits to its subregions and planning partners.

Transit Asset Management Performance Measure Rule

Transit Asset Management (TAM) is the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles to provide safe, cost-effective, and reliable public transportation. TAM uses transit asset conditions to guide how to manage capital assets and prioritize funding to improve or maintain a State of Good Repair (SGR). Based on the mandate in MAP-21 and continued in the IIJA, FTA developed a rule establishing a strategic and systematic process of operating, maintaining, and improving public transit capital assets effectively through their entire life cycle. The TAM rule develops a framework for transit agencies to monitor and manage public transportation assets, increase reliability and performance, and establish performance measures. Transit agencies are required to develop TAM plans and submit their performance measures and targets to the National Transit Database. These measures and targets are based on the state fiscal year and are updated annually. The TAM rule established the following national transit asset management performance measures.²³

Rolling stock – In the transit industry, the Useful Life Benchmark is a commonly used indicator of the number of years an asset is expected to last and be in service. Useful Life Benchmark means either the expected life cycle of a capital asset or the acceptable period of use in service as determined by FTA. Each vehicle type's Useful Life Benchmark estimates how many years a vehicle can be in service and still be in an SGR. The Useful Life Benchmark considers how long it is cost-effective to operate an asset before ongoing maintenance costs outweigh replacement costs. As stipulated in the TAM Final Rule, transit agencies must use the required performance measure of the percentage of revenue vehicles by type that meets or exceeds the Useful Life Benchmark to track the performance of revenue vehicles (rolling stock) and service vehicles (equipment).²⁴ In addition to measuring performance, transit agencies are to use the Useful Life Benchmark to set their performance measure targets.

Equipment – Transit facilities are rated using the TERM scale. The percentage of non-revenue service vehicles by type that meets or exceeds the Useful Life Benchmark.

Facilities – The TERM scale is a Capital Needs Analysis Tool developed and used by FTA to assess the nation's transit assets and operators' current physical condition and future investment needs. It rates the condition of certain facilities on a scale of 1 to 5, with “1” denoting an asset in need of immediate repair or replacement and “5” denoting a new asset with no visible defects. The TAM Final Rule stipulates a performance measure of the percentage of facilities by group that are rated less than 3.0 on the TERM scale.

²³ As specified in [49 Code of Federal Regulations \(CFR\) Part 625 \(d\)](#).

²⁴ As specified in [49 United States Code \(USC\) 625](#).

Infrastructure – The percentage of track segments by mode that have performance restrictions.

Under the provisions of the Transit Asset Transportation Performance Management rulemaking, transit operators are required to set performance targets for their transit asset portfolio. MPOs are then required to set their own targets or adopt the transit operators' targets for the transit asset portfolio in their region based on measures mandated by the rule. The performance measures were selected by the FTA and include the following for reference.

- Average revenue fleet age
- Average non-revenue fleet age
- Percentage of facilities that are below a condition rating of 3 on the Transit Economic Requirements Model scale
- Percent of the track system under a performance restriction

Transit agencies must upload their performance targets and a supporting narrative in their annual National Transit Database (NTD) submission and report progress against these targets. They must also develop a Transit Asset Management Plan (TAMP) that adheres to the following nine (9) elements to ensure assets are in an SGR.

1. Inventory of Capital Assets
2. Condition Assessment
3. Decision Support Tools
4. Investment Prioritization
5. TAM and SGR Policy
6. Implementation Strategy
7. List of Key Annual Activities
8. Identification of Resources
9. Evaluation Plan

NJ TRANSIT is the only Tier 1 agency providing public transit service, and thus, subject to this FTA TAM performance management rule in the SJTPO region. In addition, several county bus operators operate within the SJTPO region, but these are considered subrecipients to NJ TRANSIT and not covered under the TAM. In January 2022, SJTPO took formal action to support the same set of targets for FY 2022 as NJ TRANSIT, as has been done with most of the other performance measures. SJTPO has also worked with NJ TRANSIT, NJDOT, and the other MPOs in New Jersey to develop a set of written procedures that outline the coordination process for TAM.

NJ TRANSIT Asset Management Performance Targets and Goals

NJ TRANSIT operates and maintains a large fleet of buses, railroad cars, locomotives, and light rail vehicles in the SJTPO region. NJ TRANSIT has budgeted funds to permit regular ongoing equipment replacement as it approaches the end of its useful life to ensure these assets are in

an SGR. This approach allows NJ TRANSIT to procure newer propulsion and fuel systems for vehicles and railroad equipment, as they are proven to be feasible, reliable, and cost-effective. This maintenance strategy creates a sustainable financial replacement program and is expected to continue.

NJ TRANSIT released its latest [New Jersey Tier II Group Transit Asset Management \(TAM\) Plan](#) in October 2022. In this plan, NJ TRANSIT sets forth its blueprint to identify, describe, and improve asset management practices, with the vision to maintain the agency's assets in an SGR. The Enterprise Asset Management Program TAM Plan presents a summary of inventory assets, describes the current condition of the assets, sets near-term targets for the required performance measures, and explains how NJ TRANSIT managers develop and present requests for operating/maintenance budgets and capital asset replacements. The Enterprise Asset Management Program TAM Plan also identifies NJ TRANSIT programs and projects aimed at helping to achieve TAM targets. Rolling Stock is the percentage of revenue vehicles that have met or exceeded their useful life benchmark. NJ TRANSIT's rolling stock comprises 173 locomotives (electric propulsion power, diesel fuel, and dual power), 160 self-propelled passenger cars, and 888 passenger coaches (multi-level and single-level). All locomotives and loco-hauled cars are operated in push-pull service. Out of NJ TRANSIT's 73 diesel-powered locomotives, 58 have a useful life of 30 years, which is lower than FTA's ULB of 39 years, but 15 of those locomotives have been overhauled to increase their useful life to 53 and 54 years. The 160 self-propelled passenger cars have ULBs of 47 and 48 years. Out of the 459 single-level passenger cars, 299 have a ULB of 30 years, 1 has a ULB of 46 years, and 159 have a ULB of 51 years.²⁵ In the SJTPO region, there is only one heavy commuter rail line – the Atlantic City Rail Line between Philadelphia's 30th Street Station and Atlantic City, New Jersey, with four stations located within the SJTPO region (Hammonton, Egg Harbor City, Absecon, and Atlantic City Rail Terminal).

NJ TRANSIT owns a fleet of more than 2,600 buses, with approximately 1,223 covering local routes and 1,429 covering commuter routes, which includes buses provided to private carriers and contract service providers. Similarly, there are two types of buses – over-the-road, which are used on the longer distance commuter routes, and the smaller transit buses, which service the local routes. The active bus fleet in daily service is in an SGR. NJ TRANSIT has determined the ULB for buses should be 12 years for those in transit service. These include articulated, transit, and suburban buses. NJ TRANSIT's ULB for Over-the-Road for commuter service is 14 years.

Table 11.1: TAMP Targets, Targets for Rolling Stock Performance Measure, FY 2022 Target (%)

| Performance Measure | FY 2022 Target (%) |
|---------------------|--------------------|
| Articulated Bus | 0.00 |

²⁵ NJ TRANSIT. Enterprise Asset Management Plan. September 2022. Table 7.

| | |
|--|-------|
| Automobile | 37.98 |
| Over-the-road Bus | 23.60 |
| Bus | 24.80 |
| Cutaway | 58.15 |
| Light Rail Vehicle | 0.00 |
| Minivan | 0.00 |
| Commuter Rail Locomotive | 8.33 |
| Commuter Rail Passenger Coach | 0.00 |
| Commuter Rail Self-Propelled Passenger Car | 0.00 |
| Van | 0.00 |

NJ TRANSIT also uses a variety of non-revenue vehicles and railroad equipment to support operations, inspections, repairs, and upgrades of the railroad. Without this fleet and equipment available in sufficient quantity and appropriately maintained, essential railroad work cannot occur. NJ TRANSIT's non-revenue service vehicle inventory includes ordinary automobiles to locomotives that also include police cruisers and specialized track machinery (e.g., Light Duty Trucks, Heavy Duty Trucks, and Rubber Tire Construction Equipment and Trailers). Furthermore, NJ TRANSIT has a fleet of corporate non-revenue service vehicles (police, technology, maintenance, and administration) and Information Systems equipment, such as radio towers, radio repeater equipment, ticket vending machines, and a drone. The 2022 targets for automobiles, trucks and other rubber tire vehicles, and steel wheel vehicles that have met or exceeded their useful life benchmark are listed below for reference.

Table 11.2: TAMP Targets, Targets for Equipment, FY 2022 Target (%)

| Performance Measure | FY 2022 Target (%) |
|---------------------------------------|--------------------|
| Automobile | 55.38 |
| Trucks and Other Rubber Tire Vehicles | 58.53 |
| Steel Wheel Vehicles | 33.33 |

In addition to rolling stock, and service equipment, NJ TRANSIT has capital responsibility over 293 commuter rail facilities. This includes 230 passenger facilities, two park-and-ride, 51 maintenance facilities, and ten administrative buildings. The targets for facilities are the percentage of facilities rated below "3" on the condition scale. The Facility Performance Targets for the entire system are listed below for reference.

Table 11.3: TAMP Targets, Targets for Facilities, FY 2022 Target (%)

| Performance Measure | FY 2022 Target (%) |
|---|--------------------|
| Passenger and Parking Facilities | 4.00 |
| Administrative and Maintenance Facilities | 4.00 |

In addition to rolling stock, service equipment, and facilities, NJ TRANSIT commuter rail infrastructure includes track, structure, electric traction, and signals and communication assets, all of which are maintained following Federal Railroad Administration (FRA) regulations and good engineering practice. Regarding the performance metrics listed in the table below, infrastructure is the percentage of track segments with performance restrictions. NJ TRANSIT implements the principles of its TAM policy by adopting an SGR policy to maintain capital assets to the level where the asset operates at full performance to provide safe, reliable, convenient, and cost-effective transit service to its customers. NJ TRANSIT has committed to improving the resiliency of its systems to prevent future damage and to prepare for possible future extreme weather events and security threats. This includes significant new investments in a series of hardening projects, such as new rail vehicle storage, upgraded power systems, maintenance facilities, emergency control centers, security improvements, and signal and communications systems resilience upgrades. For 2022, approximately 1.75 percent of the commuter rail’s Statewide Commuter Rail track segment, which includes the Atlantic City Rail Line, the only rail facility in the SJTPO region, experienced performance restrictions.

Table 11.4: TAMP Targets, Targets for Infrastructure, FY 2022 Target (%)

| Performance Measure | FY 2022 Target (%) |
|---------------------|--------------------|
| Commuter Rail | 1.75 |

The SJTPO Policy Board approved the four FY 2022 Transit Asset Management (TAM) targets at the January 24, 2022, meeting under [Resolution 2201-06](#).²⁶

Progress Towards Transit Asset Management Targets

The Transit Asset Transportation Performance Management rule requires MPOs to describe how the region’s TIP will help to achieve the TAM targets. SJTPO’s FFY 2024-2033 TIP was developed to ensure progress towards target achievement. Transit operators have taken steps to ensure that projects selected for TIP funding help to achieve the TAM targets.

As noted in [Section 4](#), NJ TRANSIT has programmed more than \$143 million over the first four years (FFY 2024-2027) of the current FFY 2024-2033 TIP and approximately \$310 million over the later federal fiscal years from FFY 2026-33 for transit projects and programs that are directed towards asset management in the SJTPO region. Some of NJ TRANSIT’s projects and programs from the first four years (FFY 2024-2027) of the current FFY 2024-2033 TIP with a direct impact on transit asset performance include the following as listed for reference.

- More than \$171.0 million is programmed for the preventive maintenance of the bus system (see DB #T135). In addition, more than \$45 million is allocated towards the rail

²⁶ At the time of this publication, the TAMP targets for FY 2022 have not yet been finalized.

preventive maintenance program (DB #T39), which is used for the overhaul of rail cars and locomotives, and other preventive maintenance costs.

- More than \$31 million is allocated towards replacing rail cars and locomotives that have reached the end of their useful life (DB #T112), and over \$129.5 million for replacing buses (DB #T111).
- More than \$41 million is set aside for Transit Enhancements or Transportation Alternatives programs (DB #T210). These are improvements that, in addition to refurbishing transit and transit facilities, also help to encourage more people to use alternative modes of transportation to driving, such as biking or walking.

NJ TRANSIT's \$1.732 billion FY 2024 Capital Program (from July 1, 2023, to June 30, 2024) calls for continued investment in the state's transit infrastructure to maintain an SGR and provide reliable transit service. An emphasis on better preparing NJ TRANSIT to withstand and recover from future extreme weather events through building a more resilient system remains a vital focus of the Capital Program, which invests in railroad bridge rehabilitation, track replacement, signal upgrades, repairs to overhead power lines and electric substations, improvements to rail stations, and bus shelter upgrades.

Public Transportation Agency Safety Performance Measures Rule

FTA published a final PTASP rule and related performance measures as authorized by [Section 20021](#) of MAP-21. This rule became effective on July 19, 2019. The PTASP rule requires operators of public transportation systems that receive federal financial assistance under [49 USC Chapter 53](#) to develop and certify a PTSAP. The PTASP undergoes an annual review every year. The PTSAP must include specific performance targets based on safety performance measures established under the National Public Transportation Safety Plan. The development and implementation of PTSAPs is anticipated to help ensure that public transportation systems are safe nationwide.

Public Transportation Agency Safety Plan Safety Performance Targets and Goals

As a rail operator and an operator of large bus systems – more than 100 vehicles in peak revenue service – NJ TRANSIT must draft and implement its own PTASP. For small operators, defined as those operating 100 or fewer vehicles in peak revenue service, subject to the rule, states must draft and certify a PTASP on their behalf, unless a small provider opts to draft and certify its own safety plan and notifies the state that it will do so. The required transit safety performance measures are listed in the table below.

Table 12: Transit Safety Performance Measures

| Category | Measure |
|------------|---|
| Fatalities | Total number of reportable fatalities by mode |

| | |
|--------------------|---|
| | Rate of reportable fatalities per total vehicle revenue miles (TVRM) by mode |
| Injuries | Total number of reportable injuries by mode Rate of reportable injuries per TVRM by mode |
| Safety Events | Total number of reportable safety events by mode Rate of reportable safety events per TVRM by mode |
| System Reliability | Mean distance between major mechanical failures by mode |

On June 30, 2022, NJ TRANSIT released its one-year targets for each of these required measures for CY 2022. The safety performance targets for the bus network are listed in the table below.

Table 12: Transit Safety Performance Targets, Bus for CY 2022

| | | | | Safety Events | | | | | | |
|-----------------|-----------------------|------------------------|----------------------------------|-----------------|--------------------------|------------------------|------------------------------|----------------------------|------------------|--|
| Fatalities/Rate | | Customer Injuries/Rate | | Collisions/Rate | | Employee Injuries/Rate | | Major Bus Fire Events/Rate | | System Reliability |
| 6 | 0.085/ M. Miles | 173 | 3.35 2.45/ M. Mile s | 222 | 3.14 /M. Mile s | 431 | 7.67/ 200, 000 Hrs. | 6 | 0.09/M. Miles | 5 6,540 MDBSF * 0.07/ M. Miles |

* MDBSF= Mean Distance between Major Service Failures

The SJTPO Policy Board endorsed the CY 2022 Public Transportation Agency Safety Plan (PTASP) Safety Performance Targets Set by the NJ TRANSIT at their September 26, 2022 Policy Board meeting under [Resolution 2209-30](#).

Progress Towards Meeting Transit Safety Targets

NJ TRANSIT's transit safety targets are computed based on a rolling average of the past three years of data. In other words, the CY 2022 target is based on data from CY 2019-2021, the CY 2021 target is based on data from CY 2018-2020, etc. As such, looking at past years' targets can provide a rough proxy for transit safety performance. The table below depicts the last three years of public transportation safety targets, including the most recent set of targets for CY 2022.

Table 13: Transit Safety Performance Targets, Bus for CY 2022

| Performance Measure | CY 2020 | CY 2021 | CY 2022 |
|---|----------------------|----------------------|----------------------|
| Total Number of Fatalities | 4 | 5 | 6 |
| Rate of reportable fatalities per total vehicle revenue miles | 0.055/ Million Miles | 0.073/ Million Miles | 0.085/ Million Miles |
| Total Number of Passenger Injuries | 244 | 202 | 173 |
| Rate per Total Vehicle Revenue Miles | 3.35/ Million Miles | 2.76/ Million Miles | 2.45/ Million Miles |

| | | | |
|---|-----------------------|----------------------|----------------------|
| Total number of safety Events: | 264 | 231 | 222 |
| Total Number of Collisions | | | |
| Rate of Collisions per Vehicle Revenue Miles | 3.63/ Million Miles | 3.15/ Million Miles | 3.14/ Million Miles |
| Total Number of Employee Injuries | 423 | 437 | 431 |
| Rate of Employee Injuries | 7.99/ 200,000 Hours | 7.99/ 200,000 Hours | 7.67/ 200,000 Hours |
| Total Number of Major Bus Fire Events | 12 | 9 | 6 |
| Rate of Major Bus Fire Events | 0.16/ Million Miles | 0.13/ Million Miles | 0.9/ Million Miles |
| System Reliability: Mean Distance (Miles) between Major Service Failures by Mode (MDBSF) | 135.45/ Million Miles | 72.08/ Million Miles | 6,540/ Million Miles |
| Security Events: Total Number of Assault/Security Incident Events | ** | ** | 5 |
| Rate of Security Incidents per Vehicle-Revenue Miles | ** | ** | 0.07/ Million Miles |

** No Security Targets included in this set of targets.

The annual safety targets appear to be being met in the past three years of targets. However, a few of the targets, such as the total number and rate of fatalities per total vehicle revenue miles, are trending upward slightly, indicating a slight upward trend in the number and rate of fatalities over the past three calendar years. Many of the indicators, including the total number of passenger injuries, the total number of safety events, and the total number of employee injuries, are trending downward. SJTPO will continue working closely with NJ TRANSIT to assess the agency's progress toward meeting these transit safety targets and programming projects. Safety across all transportation modes, including transit, is a top priority for the SJTPO, as evidenced by "Improve Transportation Safety," being one of the Regional Transportation Plan goals and the Safety Pre-Screening Criterion of SJTPO's Project Selection Process.