# THE 2025-2028 TRANSPORTATION IMPROVEMENT PROGRAM CONTRIBUTION TOWARDS ACHIEVING THE PERFORMANCE GOALS OF VISION 2050 AND THE ESTABLISHED TARGETS FOR THE NATIONAL PERFORMANCE MEASURES

This appendix documents the expected contribution of projects programmed in the 2025-2028 transportation improvement program for Southeastern Wisconsin (TIP) towards achieving the performance goals of VISION 2050—the year 2050 regional land use and transportation plan—and the targets for the National performance measures (NPM). Per Federal requirements, targets have been established by the Commission for the transit state-of-good-repair and highway safety, pavement/bridge condition, system and freight reliability, and congestion mitigation and air-quality (CMAQ) performance measures; and targets have been established by area transit operators and the Commission for the transit safety performance measures.

## CONTRIBUTION OF PROJECTS IN THE 2025-2028 TIP TOWARDS ACHIEVEMENT OF VISION 2050 PERFORMANCE GOALS

Performance measures have long been utilized by the Commission in the development of, and in the monitoring the implementation of, its regional transportation plans, including VISION 2050. Specifically, regional performance measures based on plan goals and objectives were established and used during the development of VISION 2050 to evaluate the effectiveness of alternative regional land use and transportation plans and the preliminary and final recommended plans. Thus, implementation of the various transportation elements of VISION 2050 would contribute to the achievement of the plan goals. VISION 2050 also identified a number of measures for the monitoring of the performance of the transportation system as transportation projects are implemented.[1] Examples of transportation performance measures that are monitored include pavement/bridge condition, level of traffic congestion and delay, vehicle and pedestrian/bicycle crashes, air-quality emissions, and transit quality.

The 2025-2028 TIP includes about $3.55 billion in expenditures for transit, arterial roadway, bicycle/pedestrian, and other transportation-related projects in Southeastern Wisconsin. These TIP projects are consistent with, and serve to implement, the transportation-related goals and recommendations of VISION 2050, including recommendations related to transit, bicycle/pedestrian facilities, transportation system management, travel demand management, arterial streets and highways, and freight facilities. Table 1 shows the potential contribution of the projects programmed to be implemented (constructed or operating) within the period of the 2025-2028 TIP towards achieving select transportation goals and performance measures identified in VISION 2050. Some projects programmed to be implemented in the TIP are more focused in their impact toward achievement of VISION 2050 goals, such as safety projects, congestion mitigation and air quality (CMAQ) projects, and bicycle/pedestrian projects. However, other programmed projects have much broader contributions toward the achievement of the VISION 2050 goals. For example, projects involving arterial resurfacing, reconditioning, and reconstruction, while primarily

[1] *Table 3.11 of Chapter 3 of Volume III (3rd Edition) of the VISION 2050 report identifies the performance measures that are monitored and the frequency of their monitoring—annually as part of the Commission's annual report, every four years as part of an interim plan update, or every 10 years as part of a major plan update.*

## Table 1
## Potential Contribution of Projects Towards Achieving VISION 2050 Goals

| Select VISION 2050 Goal | Associated Performance Measures | Projects Programmed in 2025-2028 TIP[a] | | |
|---|---|---|---|---|
| | | Project Types | Quantity | Amount of Total Funds Programmed ($) |
| Maintain State of Good Repair of Transit System | -- | Capital Transit Preservation Projects[b] | 82 Projects | 237,183,200 |
| Expand and Improve Transit Service | Transit Service Area and Quality | Transit Improvement and Expansion Projects[c] | 51,600 People Served with Improved Transit | 7,425,000 |
| Expand and Improve Bicycle/Pedestrian Facilities | Miles of Bicycle and Pedestrian Facilities | Expansion and Improvement of Pedestrian/Bicycle Facilities[d] | 30 Miles | 38,345,300 |
| Maintain State of Good Repair of Arterial Roadways | Pavement Condition | Resurfacing, Reconditioning, and Reconstruction[e] of Arterial Roadways | 457 Miles | 1,545,747,700 |
| Maintain Bridge Condition | Bridge Condition | Rehabilitation and Replacement of Bridges | 320 Bridges | 284,622,700 |
| Reduce Vehicular Congestion | Miles of Arterials Experiencing Congestion and Excessive Delay | Reconstruction of Arterials with Additional Lanes and New Arterials | 4 Miles | 711,516,900 |
| Reduce Vehicular Crashes | Number and Rate of Crashes | Highway Safety Projects[f] | 41 Projects | 95,736,680 |
| Reduce Air-Quality Emissions | Transportation Emission Levels | Congestion Mitigation and Air-Quality Projects | 27.2 Kilograms (kg) Per Day Emission Reduction[g] | 82,247,500 |

[a] *Unless otherwise indicated, includes only projects that have construction programmed within the 2025-2028 TIP.*

[b] *Does not include the $542 million in operating funds programmed in the 2025-2028 TIP to maintain the existing transit service.*

[c] *Includes both transit operating and capital expansion projects programmed in the 2025-2028 TIP.*

[d] *Does not include the bicycle lanes, paved shoulders, and other bicycle accommodations that could be provided as part of the 386 miles of programmed resurfacing, reconditioning, and reconstruction (non-freeway) projects.*

[e] *Includes both reconstruction to same capacity and reconstruction with additional traffic lanes.*

[f] *Represents stand-alone safety projects and does not include the safety improvements associated with other projects, such as those potentially included in reconstruction, resurfacing and reconditioning projects.*

[g] *Includes estimated reductions for the ozone precursors nitrogen oxides ($NO_x$) and volatile organic compounds (VOCs) and for fine inhalable particles ($PM_{2.5}$) for Congestion Mitigation and Air-Quality Improvement Program (CMAQ) funding. Includes both operating and capital projects.*

*Source: Southeastern Wisconsin Regional Planning Commission*

addressing the condition of pavement, could also address safety, provide bicycle/pedestrian accommodations, and address congestion and air quality by improving traffic flow (such as providing signal coordination).

## CONTRIBUTION OF PROJECTS IN THE 2025-2028 TIP TOWARDS ACHIEVEMENT OF NATIONAL PERFORMANCE MEASURE TARGETS

To establish a consistent nationwide process for monitoring the effectiveness of Federal transportation investments, MAP-21, enacted in 2012, created a framework for a national performance management approach to transportation decision-making on investments with Federal highway and transit funding. In implementing the management approach, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have developed specific highway and transit performance measures, and requirements for States, transit operators, and Metropolitan Planning Organizations (MPOs) to establish and report targets, along with the monitoring of achievement of the targets, for each performance measure. Table 2 shows the performance measures established by FHWA and FTA. The Commission is responsible for establishing performance targets for all of the performance measures for Southeastern Wisconsin and is required to report in VISION 2050 the established performance targets. In addition, the Commission is required to include in the TIP a description of how the projects programmed in the TIP promote the achievement of the performance targets. Depending on the performance measure, targets are established for the Southeastern Wisconsin metropolitan planning area or for a specific urbanized area—such as the Milwaukee urbanized area.

The Commission has established regionwide targets per Federal regulations for the performance measures relating to transit safety, transit asset management, highway safety, pavement and bridge condition, system reliability along the NHS, freight reliability along the Interstate, and CMAQ. The congestion-related CMAQ performance targets were established jointly with WisDOT staff, which were updated in 2024. The performance targets for the FHWA safety, NHS condition and reliability, and freight reliability measures were initially established based on the methodology developed for VISION 2050. The Commission staff reviewed the performance targets that the Commission is solely responsible for and developed updated performance targets for inclusion in VISION 2050 as part of its update in 2024. The Commission is in the process of developing performance targets for the greenhouse gas emissions-related performance measure. Establishment of the targets is expected to occur in 2026.

The projects listed in the  TIP include a number of projects programmed to be implemented (constructed or operating) within the period of the TIP that would be expected to contribute to the achievement of these targets. The remainder of this section summarizes the targets established for each of the performance measures, and how the TIP contributes to the targets established for the national performance measures.

### Transit Asset Management Targets

Table 3 shows the short-term targets for the transit asset management performance measures that were established by the Commission. The $237 million of funds programmed for implementing capital-related transit preservation projects[2] (such as vehicle capitalized maintenance and replacement projects and facility repair and upgrade projects) within the four-year period of the TIP are expected to contribute to the achievement of these targets. The capital-related transit preservation projects programmed in the TIP were provided by transit operators based on their processes for monitoring the condition of their vehicles and facilities and prioritizing their maintenance and replacement (given the level of available funding). Per Federal requirements, since 2018 all of the transit operators in Southeastern Wisconsin have developed,

[2] *The 2025-2028 TIP includes $786 million programmed for transit operation and capital projects, with $549 million, or 70 percent, for operating-related projects and $237 million, or 30 percent, is for capital-related projects.*

## Table 2
## National Performance Measures

| Performance Measure Areas | Performance Measures |
|---|---|
| FTA Section 53 Funding (including Sections 5307, 5310, 5311, 5337, and 5339) Measures | |
| Transit Asset Management | Percentage of Revenue Vehicles Exceeding the Useful Life Benchmark (ULB)<br>Percentage of Non-Revenue Service Vehicles Exceeding the ULB<br>Percentage of Facilities Exceeding the Transit Economic Requirements Model (TERM) Scale<br>Percentage of Track Segments Having Performance Restrictions |
| Transit Safety | Number of Reportable Fatalities<br>Rate of Reportable Fatalities Per Vehicle Revenue Miles<br>Rate of Reportable Fatalities Per Vehicle Revenue Miles<br>Number of Reportable Injuries<br>Rate of Reportable Injuries Per Vehicle Revenue Miles<br>Number of Reportable Events<br>Rate of Reportable Safety Events Per Vehicle Revenue Miles<br>Mean Distance Between Major Mechanical Failures |
| FHWA Highway Safety Improvement Program (HSIP) Measures | |
| Number of Fatalities and Serious Injuries | Number of Fatalities<br>Number of Serious Injuries<br>Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries |
| Rate of Fatalities and Serious Injuries | Rate of Fatalities per 100 Million Vehicle Miles Travelled (MVMT)<br>Rate of Serious Injuries per 100 MVMT |
| FHWA National Highway Performance Program (NHPP) Measures | |
| Condition of Pavements on the Interstate System | Percentage of Pavement of the Interstate System in Good Condition<br>Percentage of Pavement of the Interstate System in Poor Condition |
| Condition of Pavements on the National Highway System (NHS) Excluding the Interstate | Percentage of Pavement of the Non-Interstate NHS in Good Condition<br>Percentage of Pavement of the Non-Interstate NHS in Poor condition |
| Condition of Bridges on the NHS | Percentage of NHS Bridges Classified as in Good Condition<br>Percentage of NHS Bridges Classified as in Poor Condition |
| Performance of the Interstate System | Percentage of the Person-Miles Traveled on the Interstate that are Reliable |
| Performance of the NHS Excluding the Interstate | Percentage of the Person-Miles Traveled on the Non-interstate NHS that are Reliable |
| Greenhouse Gas Emissions | Percent Change of NHS Tailpipe CO2 Emissions |
| FHWA National Highway Freight Program (NHFP) Measures | |
| Freight Movement on the Interstate System | Truck Travel Time Reliability Index |
| FHWA Congestion Mitigation and Air-Quality Improvement Program (CMAQ) Measures | |
| On-Road Source Emissions | Estimate of Emission Reductions for Projects Funded by CMAQ |
| Traffic Congestion | Peak Hour Excessive Delay (PHED) Per Capita<br>Percentage of Non-Single Occupancy Vehicles |

*Source: Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and the Southeastern Wisconsin Regional Planning Commission*

## Table 3
## Transit Asset Management Baseline and Targets

| Asset Class | Asset Examples | Performance Measure | Year 2021 Data | Short-Term Targets[a] |
|---|---|---|---|---|
| Rolling Stock | | | | |
| Buses, Other Passenger Vehicles, and Railcars | Bus, Cutaway, Van, Minivan, and Streetcars | Percent of revenue vehicles that have either met or exceeded their useful life benchmark | 6.1% | <30% |
| Equipment | | | | |
| Non-revenue service vehicles and equipment over $50,000 | Route Supervisor Vehicles, Maintenance Trucks, Pool Vehicles, DPF Cleaning System, Bus Wash Systems, Fare Collection systems, Vehicle Lifts | Percent of vehicles and equipment that have either met or exceeded their useful life benchmark | 47.5% | <30% |
| Facilities | | | | |
| Support | Maintenance and Administrative Facilities | Percent of facilities within an asset class, rated below 3 on condition reporting system | 50.0% | <15% |
| Passenger | Rail Terminals, Bus Transfer Stations | Percent of facilities within an asset class, rated below 3 on condition reporting system | 0.0% | 0% |
| Parking | Park-and-Ride Lots with Direct Capital Responsibility | Percent of facilities within an asset class, rated below 3 on condition reporting system | 0.0% | 0% |
| Infrastructure | | | | |
| Fixed Guideway | Track Segments, Exclusive Bus Rights-of-Way, Catenary Segments, and Bridges | Percent of segments that have performance restrictions | 0.0% | 0% |

[a] *Short-term targets (2018 and beyond) for these performance measures will be based on the original year 2018 target until additional Federal and State funding becomes available for transit capital projects.*

*Source: National Transit Database and the Southeastern Wisconsin Regional Planning Commission*

and updated quadrennially, transit asset management plans to assist in maintaining a state-of-good repair for their vehicles and facilities.[3] These plans were updated by the transit operators in 2022.

**Transit Safety Targets**

Table 4 shows the regional transit safety targets by mode of transit service established by the area transit operators and the Commission. Similar to the transit asset management targets, it is expected that many of the transit preservation-related projects programmed in the TIP would contribute towards maintaining or improving the safe operation and use of transit vehicles and facilities by minimizing exposure and risk of the public and transit operator personnel to potentially unsafe vehicles, equipment, and facilities. Per Federal requirements, all of the appropriate transit operators in the Region developed transit safety plans to assist the operators in the safe operation of their systems.

**Highway Safety Targets**

Table 5 shows the short-term targets for each of the four years of the TIP that have been established by the Commission for the five national highway safety performance measures. In particular, the $96 million of highway safety projects programmed for implementation would particularly serve to assist in the achievement of these targets. This includes about $61 million of FHWA Highway Safety Improvement Program (HSIP) funds. The projects approved for HSIP funds are reviewed and prioritized based on their ability to reduce crashes and their achievement of the goals of the State's Strategic Highway Safety Plan. Other projects listed in the TIP—such as transit improvement and expansion, bicycle/pedestrian projects, and highway projects—can also contribute to the achievement of the safety targets. For example, the programmed arterial resurfacing, reconditioning, and reconstruction projects can include elements that reduce the number of crashes, such as improving the roadway cross-section and the horizontal/vertical alignments, adding/modifying signage and pavement markings, and controlling access. In addition, the TIP projects related to the improvement and expansion of transit services and bicycle/pedestrian facilities are expected to reduce the growth in vehicle travel, conflicts, and crashes, as they encourage increased travel on safer facilities and safer services while reducing travel by automobile and demand on the Region's roadways.

**Pavement and Bridge Condition Targets**

Table 6 shows the short-term targets that have been established by the Commission for the performance measures related to pavement and bridge conditions on the NHS within the Region's metropolitan planning area. Of the $1.53 billion of programmed resurfacing, reconditioning, and reconstruction[4] projects that would potentially contribute to improving pavement condition of NHS roadways, about $1.05 billion is programmed for about 69 miles, or about 32 percent, of the Interstate portion of the NHS in Southeastern Wisconsin (as shown in Table 7). This includes the IH 94 east-west freeway reconstruction projects. Another $481 million is programmed for about 143 miles, or about 14 percent, of the non-Interstate portion of the NHS in Southeastern Wisconsin. In total, about 212 miles, or about 17 percent, of the NHS in Southeastern Wisconsin will be resurfaced, reconditioned, or reconstructed within the next four years, improving the pavement conditions along the NHS.

With respect to the bridge condition performance measures, the $150 million of programmed bridge rehabilitation and bridge replacement projects that would potentially contribute to improving the condition

[3] *The Commission staff assisted a number of transit operators in Southeastern Wisconsin in achieving the transit asset management plan requirements. Principally, the Commission is working with the smaller transit operators (those having less than 100 vehicles) in the Region to prepare group transit asset management plans.*

[4] *Includes both reconstruction to same capacity and reconstruction with additional traffic lanes.*

## Table 4
## Regional Transit Safety Five-Year Average Performance and Targets

| Mode of Transit Service | Number of Fatalities | Number of Fatalities per 1 Million VRM | Number of Injuries | Number of Injuries per 1 Million VRM | Number of Safety Events | Number of Safety Events per 1 Million VRM | Mean Distance Between Major Mechanical Failure (Miles)[b] |
|---|---|---|---|---|---|---|---|
| Five-Year Average Annual Regional Transit Safety Performance: 2017-2021 | | | | | | | |
| Fixed Route | 1.20 | 0.06 | 113.60 | 5.75 | 102.80 | 5.21 | 6,485 |
| Fixed Route Rail[a] | 0.00 | 0.00 | 3.00 | 37.78 | 5.20 | 76.90 | 7,218 |
| Non-Fixed Route Rail | 0.20 | 0.04 | 36.00 | 6.69 | 37.00 | 6.87 | 116,443 |
| Regional Transit Safety Targets: Years 2023 and 2050 | | | | | | | |
| Fixed Route | 0.50 | 0.00 | 107.60 | 5.30 | 92.50 | 4.60 | 11,258 |
| Fixed Route Rail[a] | 0.00 | 0.00 | 1.80 | 16.10 | 2.90 | 25.70 | 5,226 |
| Non-Fixed Route Rail | 0.00 | 0.00 | 40.10 | 6.90 | 41.00 | 7.00 | 110,033 |

Note: Performance categories are based on safety performance criteria established under the National Public Transportation Safety Plan pursuant to 49 CFR Part 673, Public Transportation Agency Safety Plan

[a] *The data and targets for fixed-route rail are based on the five-year average annual data for the City of Kenosha's streetcar plus one year of data for the City of Milwaukee's streetcar from 2019, the system's first full year of revenue service. The targets do not pertain to Metra commuter rail service because Metra is regulated by the Federal Railroad Administration (FRA).*

[b] *Rural or reduced reporters, including Western Kenosha County Transit, Walworth County, and the Cities of Hartford, West Bend, and Whitewater, are not required by the Federal Transit Administration to report data on major mechanical failures, and are therefore not included in the five-year annual average.*

*Source: Southeastern Wisconsin Regional Planning Commission*

## Table 5
## Targets for Safety-Related Performance Measures

| Performance Measure | Metropolitan Planning Area | | | | |
|---|---|---|---|---|---|
| | 2016-2020 Baseline Data | 2021-2025 Target | 2022-2026 Target | 2023-2027 Target | 2024-2028 Target |
| Number of Fatalities | 154.8 | 120.0 | 118.3 | 116.5 | 114.8 |
| Fatality Rate | 0.994 | 0.766 | 0.750 | 0.736 | 0.723 |
| Number of Serious Injuries | 933.6 | 530.5 | 504.4 | 479.7 | 456.1 |
| Serious Injury Rate | 5.579 | 3.346 | 3.168 | 3.001 | 2.843 |
| Number of Non-Motorized Fatalities and Serious Injuries | 164.4 | 116.6 | 112.3 | 108.1 | 104.0 |

| Performance Measure | Seven-County Region | | | | |
|---|---|---|---|---|---|
| | 2016-2020 Baseline Data | 2021-2025 Target | 2022-2026 Target | 2023-2027 Target | 2024-2028 Target |
| Number of Fatalities | 170.0 | 133.2 | 131.2 | 129.3 | 127.4 |
| Fatality Rate | 1.024 | 0.796 | 0.779 | 0.764 | 0.750 |
| Number of Serious Injuries | 990.6 | 555.7 | 526.9 | 499.6 | 473.7 |
| Serious Injury Rate | 5.627 | 3.240 | 3.055 | 2.882 | 2.719 |
| Number of Non-Motorized Fatalities and Serious Injuries | 170.8 | 120.0 | 115.4 | 110.9 | 106.7 |

*Source: Fatality Analysis Reporting System (FARS), Wisconsin Traffic Operations and Safety Laboratory, and the Southeastern Wisconsin Regional Planning Commission*

## Table 6
## NHS Pavement and Bridge Condition

| Performance Measure | Metropolitan Planning Area | | Seven-County Region | |
|---|---|---|---|---|
| | Year 2021 Baseline Data | Year 2025 Target | Year 2021 Baseline Data | Year 2025 Target |
| Interstate NHS Pavement Condition | | | | |
| Percentage of Pavement in Good Condition | 58.7 | ≥62.6% | 58.5 | ≥60.4% |
| Percentage of Pavement in Poor Condition | 0.2 | ≤4.3% | 0.8 | ≤4.5% |
| Non-Interstate NHS Pavement Condition | | | | |
| Percentage of Pavement in Good Condition | 17.9 | ≥18.0% | 17.6 | ≥19.3% |
| Percentage of Pavement in Poor Condition | 6.6 | ≤6.6% | 6.6 | ≤6.4% |
| NHS Bridge Condition | | | | |
| Percentage of NHS Bridges by Deck Area in Good Condition | 52.7 | ≥55.3% | 51.4 | ≥55.3% |
| Percentage of NHS Bridges by Deck Area in Poor Condition | 2.4 | ≤2.0% | 2.3 | ≤2.1% |

*Source: WisDOT and the Southeastern Wisconsin Regional Planning Commission*

## Table 7
## Potential Contribution of Highway Preservation, Improvement, and Expansion Projects Towards Pavement Condition Performance Measures

| Facility and Project Type | Number of Projects[a] | Number of Miles[a] | Percent of Facility/NHS[b] | Total Funds Programmed ($)[d] |
|---|---|---|---|---|
| Interstate | | | | |
| Reconstruction[c] | 1 | 3.5 | 1.6 | 711,516,900 |
| Resurfacing/Reconditioning | 12 | 65.9 | 30.8 | 342,147,600 |
| Interstate Subtotal | 13 | 69.4 | 32.4 | 1,053,664,500 |
| Non-Interstate | | | | |
| Reconstruction[c] | 10 | 12.4 | 1.2 | 97,844,000 |
| Resurfacing/Reconditioning | 56 | 130.2 | 12.5 | 374,150,100 |
| Non-Interstate Subtotal | 66 | 142.6 | 13.7 | 471,994,100 |
| NHS Total | 79 | 212.0 | 16.9 | 1,525,658,600 |

[a] *Includes only projects that have construction programmed within the 2025-2028 TIP.*

[b] *There are 214.0 miles of Interstate NHS and 1,040.6 miles of non-Interstate NHS in Southeastern Wisconsin.*

[c] *Includes both reconstruction to same capacity and reconstruction with additional traffic lanes.*

[d] *Includes the programmed funds for bridges that are part of larger highway rehabilitation or reconstruction projects. In addition, some projects programmed in the TIP along the NHS may include portions of highway that are not on the NHS. include multiple bridges, with some of those bridges being along the NHS and some of those bridges not along the NHS. As the total funds programmed is listed by each project, the total funds programmed may include funding for sections of highway that are not on the NHS.*

*Source: Southeastern Wisconsin Regional Planning Commission*

of NHS bridges. This includes about $78 million[5] programmed for the rehabilitation of 238 NHS bridges and about $72 million programmed for the replacement of 12 bridges, as shown on Table 8.

**System Reliability and Freight Reliability Targets**

Table 9 shows the short-term targets that have been established by the Commission for the performance measures related to system reliability on the statewide NHS and the interstate freight reliability within the Region's metropolitan planning area. The $725 million associated with reconstruction of arterials with additional lanes and for new arterials being implemented within the four-year period of the TIP would potentially contribute to the achievement of these targets. Specifically, as shown in Table 10, about $711 million is programmed for about 4 miles, or about 1.6 percent, of the Interstate portion of the NHS and about $14 million is programmed for about 1.3 miles, or 0.1 percent, of the non-Interstate portion of the NHS. The $256 million of NHPP funds programmed for the IH 94 reconstruction projects would be expected to maintain or improve NHS reliability and freight reliability on the interstate system. In addition, the traffic flow-type projects programmed in the TIP, such as the optimization of traffic signal timing along corridors, would also contribute to system reliability along the non-Interstate portion of the NHS by reducing delay at intersections along higher volume corridors.

Other projects programmed for implementation within the period of the TIP, such as transit improvement, transit expansion, and bike and pedestrian projects, have secondary effects on system reliability and freight reliability. Such projects promote alternatives to driving for residents, thereby reducing the number of vehicles on a roadway. Highway safety projects can also contribute to system reliability and freight reliability by reducing non-recurring congestion resulting from vehicle crashes. Other spot safety improvements, such as additional turn lanes or access management, can improve traffic flow as well.

**CMAQ Targets**

Table 11 shows the short-term targets that have been established jointly by the Commission and WisDOT for the congested-related CMAQ performance measures in the Milwaukee urbanized area. Table 12 shows the short-term targets established by the Commission for the emission-related CMAQ performance measure for the State. The $51 million of CMAQ funding programmed for projects within the four-year period of the TIP would contribute to the achievement of each target. Specifically, it is estimated that these projects, once initiated, would reduce volatile organic compounds (VOCs) emissions in Southeastern Wisconsin by 10.463 kilograms (kg) per day, Nitrogen Oxides ($NO_x$) emissions by 14.975 kg per day, and particulate matter ($PM_{2.5}$) emissions by 1.771 kg per day. However, emissions reductions are not limited to CMAQ projects. Other bus replacement, transit improvement and expansion, bicycle, pedestrian, and environmental enhancement projects including projects that optimize traffic signal timing along corridors, the purchase of alternative fuel buses or trucks, and the construction of alternative fuel facilities and equipment, that are programmed in the TIP with other funding sources can be expected to contribute to meeting the emissions reduction performance measure.

With respect to the congestion-related measures, traffic flow projects programmed with CMAQ and other funds are expected to contribute to the achievement of the Peak Hour Excessive Delay (PHED) target. Additionally, the transit improvement and expansion projects and bicycle/pedestrian projects would be expected to provide some relief to system delay. With respect to the performance measure relating to non-single occupancy vehicles (SOV), it is expected that transit improvement, transit expansion, and bicycle/pedestrian projects would contribute to the achievement of this target, as such projects promote alternatives to automobile travel. As shown on Table 13, about $46 million is programmed for such projects, including the operation of a newer bus rapid transit line for the Milwaukee County Transit System and the

[5] *Some projects programmed in the TIP include multiple bridges, with some of those bridges being along the NHS and some of those bridges not along the NHS. As the total funds programmed is listed by each project and not each bridge, the total funds programmed may include funding for those bridges that are not on the NHS.*

## Table 8
## Potential Contribution of Highway Preservation Projects Programmed Towards Bridge Condition Performance Measures

| Project Type | Number of Bridges[a] | Total Deck Surface Area | Percent of NHS[b] | Total Funds Programmed[c] ($) |
|---|---|---|---|---|
| Replacement | 12 | 13,180 | 1.0 | 72,124,200 |
| Rehabilitation/Maintenance | 238 | 481,169 | 36.0 | 78,106,100 |
| Total | 250 | 494,349 | 37.0 | 150,230,300 |

[a] *Includes only projects that have construction programmed within the 2025-2028 TIP.*

[b] *The total surface area for all NHS bridges in Southeastern Wisconsin is about 1,337,761 square feet.*

[c] *Some projects programmed in the TIP include multiple bridges, with some of those bridges being along the NHS and some of those bridges not along the NHS. As the total funds programmed is listed by each project, the total funds programmed may include funding for bridges that are not on the NHS.*

*Source: Southeastern Wisconsin Regional Planning Commission*

## Table 9
## Travel Time Reliability and Freight Reliability Targets

| Performance Measure | Year 2021 Baseline Data | | Year 2025 Targets |
|---|---|---|---|
| | Metropolitan Planning Area | Seven-County Region | |
| Travel Time Reliability | | | |
| Percent of Person-Miles Traveled on the Interstate NHS that are Reliable | 91.2 | 91.6 | ≥ 82.4 |
| Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable | 93.8 | 93.8 | ≥ 91.8 |
| Freight Reliability | | | |
| Truck Travel Time Reliability Index | 1.41 | 1.38 | ≤ 1.71 |

Note: Regional and MPA targets are the same.

*Source: WisDOT, Inrix, Inc., and the Southeastern Wisconsin Regional Planning Commission*

## Table 10
## Potential Contribution of Highway Improvement and Expansion Projects Programmed in the 2025-2028 TIP Towards the Travel Time and Freight Reliability Performance Measures

| | National Highway System (NHS) | | | |
|---|---|---|---|---|
| **Facility Type** | Number of Projects[a] | Number of Miles | Percent of Facility/NHS[b] | Total Funds Programmed[c] ($) |
| Interstate | 1 | 3.5 | 1.6% | 711,516,896 |
| Non-Interstate | 1 | 1.31 | 0.1% | 13,750,000 |
| Total | 2 | 4.81 | 0.4% | 725,266,896 |

[a] *Includes only projects that have construction programmed within the 2025-2028 TIP. Environmental enhancement projects that contribute to traffic flow are also included.*

[b] *There are 214.0 miles of Interstate NHS and 1,040.6 miles of non-Interstate NHS in Southeastern Wisconsin.*

[c] *Some projects programmed in the TIP include optimization of traffic signals at intersections across various corridors, with some of those corridors being along the NHS and some of those corridors not along the NHS. As the total funds programmed is listed by each project and not each corridor, the total funds programmed may include funding for those corridors that are not on the NHS.*

*Source: Southeastern Wisconsin Regional Planning Commission*

## Table 11
## Congestion-Related CMAQ Targets

| Performance Measure | Baseline Data (2021) | Two-Year Target (2023) | Four-Year Target (2025) |
|---|---|---|---|
| Annual Hours of Peak Hour Excessive Delay (PHED) per Capita | 5.7 | ≤8.6[a] | ≤8.4[a] |
| Percent of Non-SOV Travel | 21.6[b] | ≥20.5[a] | ≥20.5[a] |

[a] *Per Federal regulations, this target was established jointly by the Wisconsin Department of Transportation and the Southeastern Wisconsin Regional Planning Commission.*

[b] *From the 2016-2020 American Community Survey Journey to Works data.*

*Source: U.S. Bureau of the Census, Wisconsin Department of Transportation, University of Wisconsin-Madison Transportation Operations and Safety Laboratory, Inrix, Inc., and the Southeastern Wisconsin Regional Planning Commission*

## Table 12
## Regional Emission-Related CMAQ Targets

| Performance Measure | Years 2018-2021 Baseline Data[a] | Years 2022-2023 Target[b] | Years 2022-2025 Target[b] |
|---|---|---|---|
| Reduction in VOC[c] (kg/day) | 14.653 | ≥4.999 | ≥6.361 |
| Reduction in $NO_x$[d] (kg/day) | 66.459 | ≥14.462 | ≥17.661 |
| Reduction in $PM_{2.5}$[e] (kg/day) | 6.475 | ≥2.451 | ≥2.882 |

[a] *Emission reductions estimated for all of the projects implemented with CMAQ funding over the four-year period of 2018 through 2021.*

[b] *Two-year emission reduction target was developed based on the emission reductions estimated for projects completed or programmed in years 2022 and 2023. The incremental increase between the two- and four-year emission reduction targets was calculated from the emission reductions estimated for projects programmed in years 2024 and 2025 and from an estimate of the potential emission reductions for projects selected from the next funding cycle expected to be awarded in 2024. The potential emission reductions for the next funding cycle were calculated based on an average of the estimated emission reductions for projects awarded CMAQ funding in the latest two funding cycles.*

[c] *Volatile organic compounds.*

[d] *Nitrogen oxides.*

[e] *Fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.*

*Source: Wisconsin Department of Transportation and the Southeastern Wisconsin Regional Planning Commission*

## Table 13
## Potential Contribution of Transit Improvement and Expansion and Bike and Pedestrian Projects Towards CMAQ Performance Measures

| Project Type | Number of Projects[a] | Number of Miles | Total Funds Programmed ($) |
|---|---|---|---|
| Transit Expansion | 1 | 8.6 | 7,425,000 |
| Bike and Pedestrian | 30 | 29.6 | 38,345,300 |
| Total | 31 | 38.2 | 45,770,300 |

[a] *Includes only projects that have construction or operating costs programmed within the 2025-2028 TIP.*

*Source: Southeastern Wisconsin Regional Planning Commission*

implementation of 30 bicycle and pedestrian projects. Additionally, it is expected that bicycle and pedestrian accommodations that are integrated along arterial streets and highways would also contribute to the achievement of this target.