

# Regional Intergovernmental Council (RIC)

## System Performance Report



## Table of Contents

|   |    |
|---|----|
| Introduction                                    | 1  |
| Transportation Performance Management (TPM)     | 2  |
| PM1 - Safety Performance                        | 5  |
| PM2 - Pavement and Bridge Condition Performance | 10 |
| PM3 - System Performance, Freight and CMAQ      | 16 |
| Transit Performance                             | 20 |

## Introduction

The Regional Intergovernmental Council System Performance Report was created by RIC staff to optimize transportation investments through system monitorization, data management and implementation of the Transportation Performance Management (TPM) framework into transportation planning programs and processes. This report is intended to serve as a component of the Congestion Management Process (CMP) for the RIC MPO Metropolitan Transportation Plan (MTP).

The Congestion Management Process (CMP) is the first planning product of its kind and is federally required for a metropolitan planning organization (MPO) having a transportation planning area located within a Transportation Management Area (TMA). The Federal Highway Administration (FHWA) defines a CMP as “a systematic approach collaboratively developed and implemented throughout a metropolitan region, that provides for the safe and effective management and operation of new and existing transportation facilities through the use of demand reduction and operational management strategies”.

The RIC System Performance Report will be updated annually or on an as-needed basis during the interim years of the 4-year metropolitan transportation plan update cycle. A report of this nature aids in assessing the efficiency of the existing transportation system and provides guidance to implement performance-based planning into current and future transportation investments while supporting FHWA’s TPM and Performance-Based Planning and Programming (PBPP) framework to the maximum extent practicable.

As a requirement of the Fixing America’s Surface Transportation (FAST) Act and TPM guidance, State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) agencies must establish performance targets for the national performance areas pertaining to safety, infrastructure conditions, system performance, traffic congestion, on-road mobile source emissions, freight movement and transit safety. Successful TPM implementation will lead States and MPOs to have data-driven processes in place for setting targets and reporting on progress, to document the linkage between their investment decisions and intended outcomes.

# Transportation Performance Management

FHWA defines Transportation Performance Management (TPM) as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. FHWA, State DOT and MPO agencies all have duties and responsibilities surrounding TPM. Collaborative efforts among these agencies are necessary to maximize the transportation performance management initiatives.

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## *The Transportation Performance Management (TPM) framework:*

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1. is systematically applied as a regular, ongoing process
2. provides key information to help decision makers, allowing them to understand the consequences of investment decisions across transportation assets or modes
3. improves communication between decision makers, stakeholders and the public
4. ensures targets and performance measures are developed in cooperative partnerships based on data and objective information

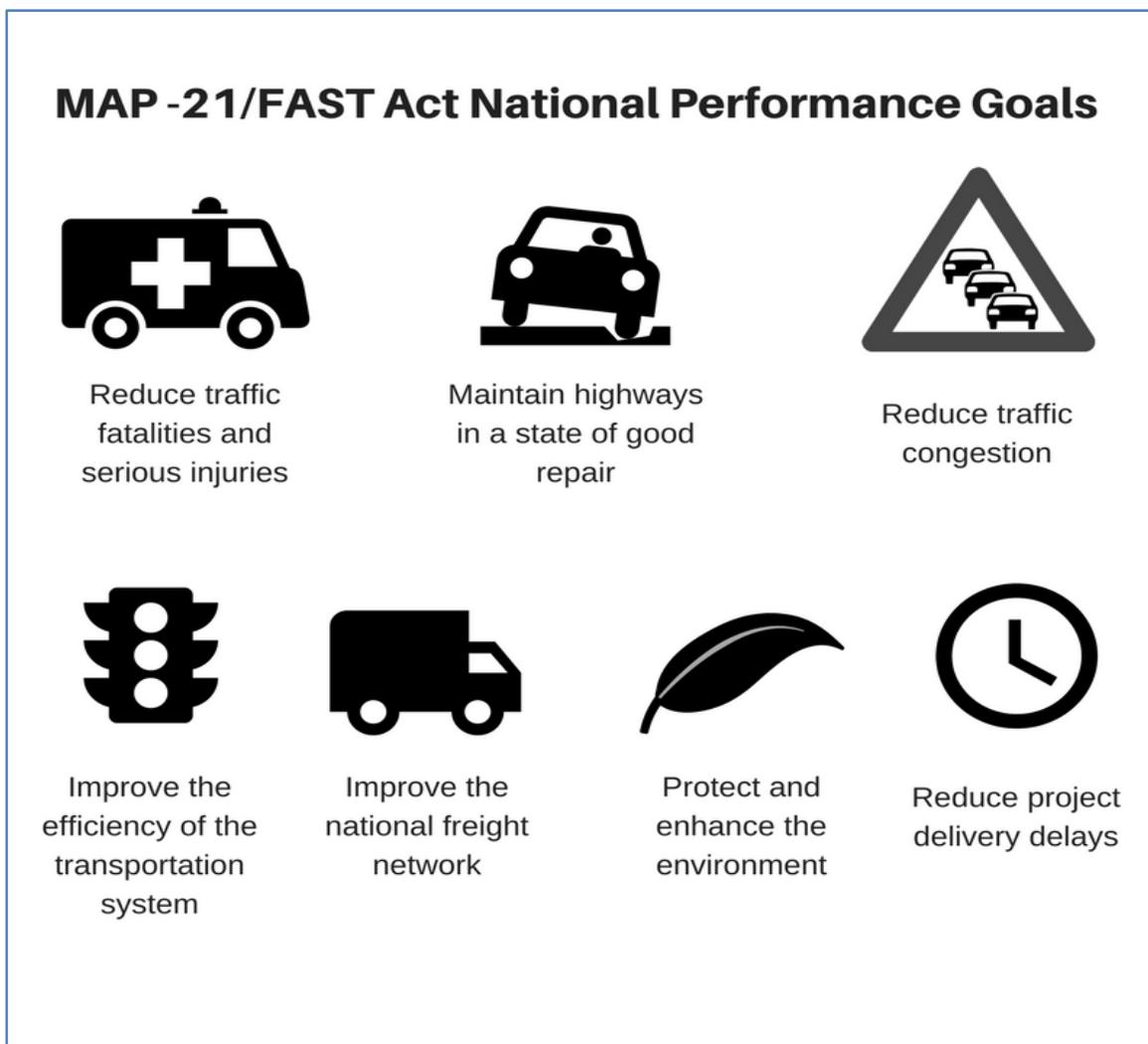


Source: FHWA

## Transportation Performance Management (TPM) Framework

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) promote the use of goal-driven, performance-based planning efforts as an effective way to integrate system performance into the planning and programming processes. This comprehensive approach focuses on short-term and long-term system performance to measure the success of current and future planning efforts.

As part of the Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) and the Fixing America's Surface Transportation (FAST) Act, State DOTs are to dedicate resources for transportation investments intended to make progress toward the seven national goal areas of:



## Overview of Performance Measures and Targets

MAP-21 and the FAST Act legislation required the United States Department of Transportation (USDOT) to establish transportation performance measures and required State DOTs and MPOs to set performance targets to increase accountability and transparency of the federal highway and transit programs, ensuring efficient investments of federal transportation funds.

The West Virginia Department of Transportation (WVDOT) established initial statewide targets for each performance measure as federally required and designated by the FHWA TPM Timeline. Once established, initial targets were designated for the baseline performance period. Data for each performance area have differing criteria for performance measures and reporting deadlines.

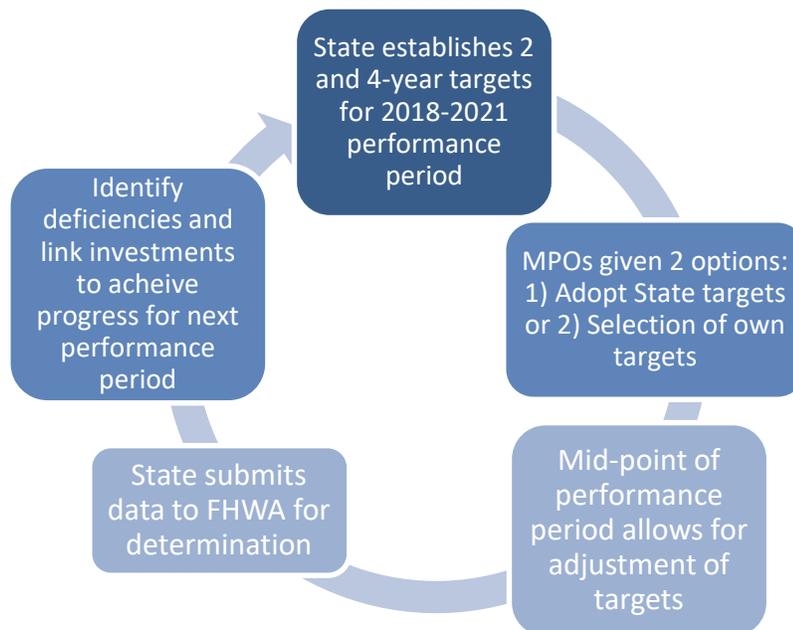
*Example: For Performance Measure 1 (PM1, Highway Safety Performance Measures), per federal requirements, WVDOT must set targets for each performance measure by August 31 of each year. Within 180 days from the date WVDOT establishes annual statewide safety targets, RIC must either elect to adopt the statewide targets, supporting WVDOTs efforts at achieving those targets, or establish quantifiable targets of their own.*

Thus far, RIC has elected to adopt WVDOT statewide targets to support WVDOT efforts for each applicable performance area. Continual monitorization and reporting of targets for all respective performance measures are federally required of both State DOTs and MPOs to efficiently guide future decision-making for transportation investments.

## PM – Safety Performance

The **Safety Performance Management** - Safety PM Final Rule, effective April 14, 2016, requires all State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) to establish and report safety targets for five safety performance measures on an annual basis. State DOTs began the process of establishing Statewide Safety Targets in 2017 for calendar year 2018. Initial safety performance targets for the state of West Virginia were adopted by WVDOT on June 23, 2017. RIC elected to support WVDOT safety performance targets, and subsequently adopted the targets at the December 14, 2017 meeting of the RIC Policy Board.

Effective May 27, 2018, Safety Performance Targets are required for inclusion into planning products including the Metropolitan Transportation Plan (MTP), the Statewide Transportation Improvement Program (STIP) and the RIC Transportation Improvement Program (TIP). RIC will continue to apply the federally required transportation performance management (TPM) framework into its planning products and work activities to the maximum extent practicable while supporting WVDOT efforts to make progress toward achieving the safety performance goals and targets.



## Safety Performance Management

Performance management is a critical element in roadway safety and is measured by the number of lives lost and serious injuries sustained on our Nation's roadways. Safety PM initiatives will help improve data, foster transparency and accountability, and allow safety progress to be tracked at the national and State level. States use the safety performance management framework to assist them in making progress toward improving road safety through the Highway Safety Improvement Program (HSIP), which requires a data-driven, strategic approach to improving highway safety through performance.

States are required to set annual safety performance targets in the HSIP Report. Per federal rulemakings, MPOs have (180 days) to adopt State safety performance targets or develop targets independent of the State. The annual performance measures for which targets are set are as follows:

1. Number of fatalities (The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year)
2. Rate of fatalities per 100 million vehicle miles traveled (VMT) (The ratio of total number of fatalities to the number of vehicle miles traveled (VMT expressed in 100 Million VMT) in a calendar year)
3. Number of serious injuries (The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year)
4. Rate of serious injuries per 100 million VMT (The ratio of total number of serious injuries to the number of VMT (VMT expressed in 100 Million VMT) in a calendar year)
5. Number of non-motorized fatalities and number of non-motorized serious injuries combined (The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year)

Safety Performance Targets adopted by the State of West Virginia and the BCKP Regional Intergovernmental Council (Date of MPO Adoption: December 9, 2021)

**1. Number of fatalities**

| Safety Performance Measure | Goal                              | Safety Performance Target Year | 2018  | 2019  | 2020  | 2021  | 2022  |
|----------------------------|-----------------------------------|--------------------------------|-------|-------|-------|-------|-------|
| Fatalities                 | 50% Reduction by 2030 (from 2009) | Target to Reach Goal           | 281.8 | 274.2 | 271.4 | 270.4 | 262.1 |

**2. Number of serious injuries**

| Safety Performance Measure | Goal                              | Safety Performance Target Year | 2018   | 2019   | 2020   | 2021  | 2022  |
|----------------------------|-----------------------------------|--------------------------------|--------|--------|--------|-------|-------|
| Serious Injuries           | 66% Reduction by 2030 (from 2013) | Target to Reach Goal           | 1211.3 | 1123.5 | 1040.1 | 959.3 | 926.4 |

**3. Fatality rate per hundred million vehicle miles traveled (HMVMT)**

| Safety Performance Measure | Goal                              | Safety Performance Target Year | 2018  | 2019  | 2020  | 2021  | 2022  |
|----------------------------|-----------------------------------|--------------------------------|-------|-------|-------|-------|-------|
| Fatality Rate              | 50% Reduction by 2030 (from 2009) | Target to Reach Goal           | 1.456 | 1.470 | 1.465 | 1.568 | 1.558 |

**4. Injury rate per hundred million vehicle miles traveled (HMVMT)**

| Safety Performance Measure | Goal                              | Safety Performance Target Year | 2018  | 2019  | 2020  | 2021  | 2022  |
|----------------------------|-----------------------------------|--------------------------------|-------|-------|-------|-------|-------|
| Serious Injury Rate        | 66% Reduction by 2030 (from 2013) | Target to Reach Goal           | 6.036 | 5.629 | 5.326 | 5.943 | 5.634 |

**5. Number of non-motorized fatalities & serious injuries**

| Safety Performance Measure               | Goal                              | Safety Performance Target Year | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|-----------------------------------|--------------------------------|------|------|------|------|------|
| Bike & Ped Fatalities & Serious Injuries | 66% Reduction by 2030 (from 2013) | Target to Reach Goal           | 89.2 | 91.6 | 91.5 | 86.1 | 80.9 |

## RIC MPO – Performance Assessment for Safety PM (Target Year 2020)

The following table represents Safety PM data specific to the RIC planning area:

*\*Depicts 5-year rolling average*

*TY = Target Year*

| Number of Fatalities                     | TY 2017 | TY 2018 | TY 2019 | TY 2020 | TY 2021 |
|--|---------|---------|---------|---------|---------|
| <b>Total Number for Target Year*</b>     | 31.2    | 33.2    | 33.6    | 33.2    |         |
| <b>Target to Reach Goal*</b>             | 29.3    | 30.3    | 32.1    | 32.3    | 31.9    |
| <b>Was the Target Met?</b>               | Not Met | Not Met | Not Met | Not Met |         |
| <b>Met or Made Significant Progress?</b> | Yes     | No      | No      | Yes     |         |

| Number of Serious Injuries               | TY 2017 | TY 2018 | TY 2019 | TY 2020 | TY 2021 |
|--|---------|---------|---------|---------|---------|
| <b>Total Number for Target Year*</b>     | 142.6   | 134.2   | 116.8   | 109.2   |         |
| <b>Target to Reach Goal*</b>             | 147.8   | 136.8   | 128.6   | 112.3   | 105.0   |
| <b>Was the Target Met?</b>               | Met     | Met     | Met     | Met     |         |
| <b>Met or Made Significant Progress?</b> | Yes     | Yes     | Yes     | Yes     |         |

| Fatality Rate Per 100 Mill./Miles (HMVMT) | TY 2017 | TY 2018 | TY 2019 | TY 2020 | TY 2021 |
|---|---------|---------|---------|---------|---------|
| <b>Average Fatality Rate*</b>             | 1.081   | 1.146   | 1.179   | 1.203   |         |
| <b>Average Target Fatality Rate*</b>      | 0.971   | 1.128   | 1.224   | 1.220   | 1.218   |
| <b>Was the Target Met?</b>                | Not Met | Not Met | Met     | Met     |         |
| <b>Met or Made Significant Progress?</b>  | No      | No      | Yes     | Yes     |         |

| Injury Rate Per 100 Mill./Miles (HMVMT)  | TY 2017        | TY 2018    | TY 2019    | TY 2020        | TY 2021 |
|--|----------------|------------|------------|----------------|---------|
| <b>Average Serious Injury Rate*</b>      | 4.925          | 4.623      | 4.075      | 3.997          |         |
| <b>Average Target Fatality Rate*</b>     | 4.889          | 4.624      | 4.185      | 3.611          | 4.112   |
| <b>Was the Target Met?</b>               | <b>Not Met</b> | <b>Met</b> | <b>Met</b> | <b>Not Met</b> |         |
| <b>Met or Made Significant Progress?</b> | <b>Yes</b>     | <b>Yes</b> | <b>Yes</b> | <b>Yes</b>     |         |

| Non-Motorized Fatalities & Serious Injuries | TY 2017        | TY 2018        | TY 2019        | TY 2020        | TY 2021 |
|---|----------------|----------------|----------------|----------------|---------|
| <b>Total Number for Target Year*</b>        | 17.8           | 19.4           | 20.0           | 19.0           |         |
| <b>Target to Reach Goal*</b>                | 17.4           | 16.9           | 18.3           | 18.8           | 17.8    |
| <b>Was the Target Met?</b>                  | <b>Not Met</b> | <b>Not Met</b> | <b>Not Met</b> | <b>Not Met</b> |         |
| <b>Met or Made Significant Progress?</b>    | <b>Yes</b>     | <b>No</b>      | <b>No</b>      | <b>Yes</b>     |         |

## PM2 - Pavement and Bridge Condition Performance

FHWA defines the second grouping of national performance management measures, **Pavement and Bridge Condition Performance - PM2**, as infrastructure to include the assessment of pavement and bridge condition. Per FHWA guidance, there are (4) established national performance measures regarding the assessment of pavement condition and (2) established national performance measures regarding the assessment of bridge condition. All (6) performance measures for both pavement and bridge are calculated by percentages.

### Pavement Condition Performance Measures

State DOTs and MPOs are required to establish and report targets for the following performance measures regarding Interstate and Non-Interstate National Highway System (NHS) pavement conditions:

1. Percent of pavements on the **Interstate NHS** system in **Good** condition
2. Percent of pavements on the **Interstate NHS** system in **Poor** condition
3. Percent of pavements on the **non-Interstate** National Highway System (NHS) in **Good** condition
4. Percent of pavements on the **non-Interstate** National Highway System (NHS) in **Poor** condition

The majority of the NHS in West Virginia is generally in Good condition based on the FHWA metrics adopted through the rule making process for MAP-21 and the FAST Act. The FHWA metrics are based upon the percentage of tenth-mile Highway Performance Monitoring System (HPMS) section data that are in **Good, Fair, or Poor** condition. Each tenth-mile HPMS section is classified as being in **Good, Fair, or Poor** condition based on the 23 CFR 490.313(c) where: (1) A pavement section shall be rated an overall condition of **Good** only if the section is exhibiting Good ratings for all three conditions (IRI, Cracking Percent, and rutting or faulting); (2) A pavement section shall be rated an overall condition of **Poor** if two or more of the three conditions are exhibiting Poor ratings (at least two ratings of Poor for IRI, Cracking Percent, and rutting or faulting). (3) A pavement section shall be rated an overall condition of **Fair** if it does not meet the criteria in paragraphs (c)(1) or (c)(2) of 23 CFR 490.313(c). Agencies are required to set targets for percentage of **Good** and percentage of **Poor** for Interstate and the Non-Interstate NHS.

Source: 2019 WV DOH TAMP

## Pavement Condition Targets adopted by the State of West Virginia and the BCKP Regional Intergovernmental Council (MPO Adoption: December 12, 2020)

The table below represents the WV Department of Transportation (WVDOT) 2018-2021 performance targets for the (4) national pavement condition performance measures. RIC adopted these targets on December 12, 2020:

| Performance Measure  | Performance Period   | Baseline Performance (2017) | 2-Year Target (2019) | Significant Progress? (2019) | 4-Year Target (2021) |
|--|--|-----------------------------|----------------------|------------------------------|----------------------|
| Percentage of pavement on the <b>Interstate NHS</b> in <b>Good</b> condition     | Based on 4-year (2018-2021) performance period                         | 73.4%                       |                      |                              | 75.0%                |
| Percentage of pavement on the <b>Interstate NHS</b> in <b>Poor</b> condition     | Based on 4-year (2018-2021) performance period                         | 0.1%                        |                      |                              | 4.0%                 |
| Percentage of pavement on the <b>non-Interstate</b> NHS in <b>Good</b> condition | Based on 2-year (2018-2019) and 4-year (2018-2021) performance         | 40.9%                       | 40.0%                | <b>Yes</b>                   | 45.0%                |
| Percentage of pavement on the <b>non-Interstate</b> NHS in <b>Poor</b> condition | Based on 2-year (2018-2019) and 4-year (2018-2021) performance periods | 1.2%                        | 5%                   | <b>Yes</b>                   | 5%                   |

## RIC MPO - Pavement Condition

The (4) pavement condition performance measures are separated into two categories, one for applicable lane miles on the Interstate National Highway System (NHS), and the other for applicable lane miles on the non-Interstate NHS. The 2017 pavement condition assessment for the RIC MPO area consisted of 417.8 applicable lane miles of the Interstate NHS and 304.9 applicable miles of non-Interstate NHS.

The table below represents the RIC Pavement Condition Assessment (2017 Data)

| RIC MPO Planning Area: Pavement Condition Assessment               |           |
|--|-----------|
| Performance Measure  | Value (%) |
| Pavement on the <u>Interstate NHS</u> in <b>Good</b> condition     | 62.4%     |
| Pavement on the <u>Interstate NHS</u> in <b>Poor</b> condition     | 0%        |
|  |           |
| Pavement on the <u>non-Interstate</u> NHS in <b>Good</b> condition | 28.1%     |
| Pavement on the <u>non-Interstate</u> NHS in <b>Poor</b> condition | 0.4%      |

## Bridge Condition Performance Measures

West Virginia currently has 1,294 bridges comprising 24,504,470 square feet of deck area on the NHS. These are split relatively equally between Interstate and Non-Interstate systems. WVDOH owns the majority of NHS bridges, however, a portion of the Interstate bridges are owned by the West Virginia Turnpike (WV Turnpike or Turnpike). In total, WVDOH owns 1,195 (92%) of the NHS bridges and 22,590,843 square feet (92%) of the total NHS deck area. The WV Turnpike owns 97 (8%) of the NHS bridges and 1,823,323 square feet (8%) of the total NHS deck area.

Source: 2019 WV DOH TAMP

There are (2) national performance measures for managing of bridge performance on the National Highway System (NHS). Both performance measures are based on the bridge deck area and are classified using the National Bridge Inventory (NBI) condition ratings. Targets must be established for all bridges that carry the NHS, including on- and off-ramps connected to the NHS within a State, and bridges carrying the NHS that cross a State border, regardless of ownership. RIC elected to adopt the WVDOT bridge condition targets to support the State in their efforts toward attaining progress.

The two performance measures to assess bridge condition are listed as follows:

1. Percent of NHS bridges by deck area classified in **Good** Condition
2. Percent of NHS bridges by deck area classified in **Poor** Condition

# NHS Bridge Condition Performance Targets

The table below displays the 2-year (2018-2019) and 4-year (2018-2021) WVDOT Targets for NHS Bridge Condition performance measures:

| Performance Measure   | Performance Period  | Baseline Performance (2017) | 2-Year Performance (2019) | 2-Year Target (2019) | 4-Year Target (2021) | 4-Year Adjustment (2021) |
|---|---|-----------------------------|---------------------------|----------------------|----------------------|--------------------------|
| Percent of NHS bridges by deck area classified in <b>Good</b> condition | Based on 2-year (2018-2019) & 4-year (2018-2021) performance period | 13.9%                       | 11.6%                     | 14.0%                | 16.0%                | 11%                      |
| Percent of NHS bridges by deck area classified in <b>Poor</b> condition | Based on 2-year (2018-2019) & 4-year (2018-2021) performance period | 11.9%                       | 13.5%                     | 10.0%                | 10.0%                | 13%                      |

# RIC MPO - NHS Bridge Condition Performance

The table below represents the NHS Bridge Condition Assessment for the RIC MPO planning area:

| 2017 RIC MPO NHS Bridge Condition Assessment                           |       |
|--|-------|
| Performance Measure  | %     |
| Percent of NHS bridge deck area classified as in <b>Good</b> condition | 12.9% |
| Percent of NHS bridge deck area classified as <b>Poor</b> condition    | 4.9%  |

## PM3 - System Performance, Freight and CMAQ

**System Performance Measures - PM3** include the establishment of performance measures and requirements for target setting for State DOTs and MPOs for the following areas: performance of the Interstate and non-Interstate National Highway System (NHS), freight movement on the Interstate system, traffic congestion and on-road mobile source emissions.

### PM3 System Performance Measures

The PM3 Final Rule established performance measures for the following categories to assess overall system performance:

1. System Performance
2. Freight
3. CMAQ: Traffic Congestion
4. CMAQ: On-Road Mobile Source Emissions

## PM3 Travel Time Reliability

There are five performance targets to evaluate travel time reliability. The last two targets (numbers 4 and 5) are not applicable to the first performance period (2018-2021). RIC adopted the updated targets in the table below on December 12, 2020. The current performance measures for PM3 are listed as follows:

1. Percent of person miles traveled on the Interstate system that are reliable, Level of Travel Time Reliability (LOTTR)
2. Percent of person miles traveled on the non-Interstate system that are reliable, Level of Travel Time Reliability (LOTTR)
3. Percent of Interstate mileage providing Truck Travel-Time Reliability (TTTR)
4. Annual hours of peak-hour excessive delay per capita – *(Not applicable until 2022)*
5. Percent of non-single occupant vehicle travel – *(Not applicable until 2022)*

| Performance Measure  | Baseline (2017) | 2-Year Performance (2019) | 2-Year Target (2019) | Significant Progress? (Yes/No) | 4-Year Target (2021)                       |
|--|-----------------|---------------------------|----------------------|--------------------------------|--|
| Percent of person miles traveled on the <u>Interstate</u> system that are reliable, Level of Travel Time Reliability (LOTTR)     | 99.8%           | 99.1%                     | 98.0%                | Yes                            | 96.0%                                      |
| Percent of person miles traveled on the <u>non-Interstate</u> system that are reliable, Level of Travel Time Reliability (LOTTR) | 91.9%           | 93.7%                     |                      |                                | 87.0%                                      |
| Truck Travel Time Reliability Index (TTTR)   | 1.21            | 1.28                      | 1.25                 | No                             | 1.30<br>(4-Year Adjustment for 2021= 1.40) |

## CMAQ Performance

The RIC MPO region (Kanawha and Putnam counties) is currently designated as part of the *Charleston, WV* maintenance area under both the 1997 8-hour ozone and 2006 24-hour PM<sub>2.5</sub> NAAQS. The region is in attainment of the 2008 8-hour ozone, 2015 8-hour ozone, and 2012 annual PM<sub>2.5</sub> NAAQS. Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not prevent an area from reaching its air quality attainment goals.

The Environmental Protection Agency (EPA) approved a redesignation plan for the *Charleston, WV* nonattainment area (Kanawha and Putnam counties) on August 10, 2006 under the 1997 8-hour ozone NAAQS which reclassified the area to “Maintenance”. The WV State Implementation Plan (SIP) established 2009 and 2018 motor vehicle emission budgets (MVEBs) for the area. The MVEBs were subsequently revised using EPA’s MOVES2010a emission model effective, November 14, 2011 and were corrected on July 11, 2018 (83 FR 32062). The ozone transportation conformity analysis was conducted to evaluate emissions in comparison to the applicable ozone MVEBs as summarized in the table below.

Following the WVDOT target establishment, RIC elected to adopt the initial State targets at the June 14, 2018 meeting of the RIC Policy Board. RIC elected to adopt WVDOT’s updated CMAQ performance targets on December 12, 2020:

| Performance Measure              | Baseline Performance (2017) | 2-Year Performance (2019) | 2-Year Target (2019) | Significant Progress? (Yes/No) | 4-Year Target (2021) |
|----------------------------------|-----------------------------|---------------------------|----------------------|--------------------------------|----------------------|
| Total Emission Reductions: PM2.5 | 0.092                       | 0.122                     | 0.092                | Yes                            | 0.092                |
| Total Emission Reductions: PM10  | 0.000                       | 0.133                     | 0.000                | Yes                            | 0.000                |

## Air Quality Conformity Analysis

As part of the RIC Air Quality Conformity Analysis Report (adopted in September 2018), an emissions analysis was completed for the 1997 8-hour ozone NAAQS. The table below summarizes the Charleston area ozone emission results for a summer weekday in each analysis year. All projections are lower than the applicable conformity budgets established in the regional maintenance plan for the 1997 ozone NAAQS.

| Pollutant                | 2018 Budget<br>(tons/day) | 2018<br>(tons/day) | 2025<br>(tons/day) | 2035<br>(tons/day) | 2045<br>(tons/day) |
|--------------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|
| VOC                      | <b>13.7</b>               | 4.10               | 2.71               | 1.55               | 1.41               |
| NOx                      | <b>17.1</b>               | 11.34              | 6.50               | 4.31               | 4.56               |
| <b>Conformity Result</b> |                           |                    |                    |                    |                    |
|                          |                           | <b>Pass</b>        | <b>Pass</b>        | <b>Pass</b>        | <b>Pass</b>        |

## Transit Performance

The Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) require metropolitan planning organizations to coordinate with transit providers, to set performance targets and integrate the respective performance targets and performance plans into planning documents. These actions are components of the Transportation Performance Management (TPM) initiative to monitor and assess the performance of a transit system, more specifically transit safety.

## Transit Asset Management

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. Transit agencies were required to develop Transit Asset Management (TAM) Plans by October 1, 2018. A component of the TAM Plan requires the inclusion of transit asset condition to guide how to best manage capital assets and prioritize funding to improve or maintain a state of good repair (SGR).

The Kanawha Valley Regional Transportation Agency (KVRTA) serves as the transit provider for the Charleston, West Virginia Metropolitan Area. Per the requirements of FTA and FHWA for transit agencies, KVRTA is required to report performance targets to the West Virginia Division of Public Transit and the National Transit Database (NTD) annually. There is no penalty for missing a target and there is no reward for attaining a target.

Performance measures for transit providers are in divided into the four following categories:

- Rolling Stock
- Equipment
- Facilities
- Infrastructure (*Does not apply to KVRTA*)

## Transit Asset Performance

| Category      | Class              | Performance Measure | 2022 Target | 2021 Actual | 2020 | Actual 2021 | 2022 Targets |
|---------------|--------------------|---------------------|-------------|-------------|------|-------------|--------------|
| Rolling Stock | 12 Year/500K Miles | SGR %               | 96%         | 95%         | 99%  | 95%         | 96%          |
|               | 10 Year/350K Miles | SGR %               | 80%         | 92%         | 95%  | 78%         | 80%          |
|               | 7 Year/200K Miles  | SGR %               | 84%         | 82%         | 79%  | 82%         | 84%          |
|               | 5 Year/150K Miles  | SGR %               | 84%         | 83%         | 88%  | 83%         | 84%          |
|               | 4 Year/100K Miles  | SGR %               | 81%         | 78%         | 89%  | 78%         | 81%          |
|               |                    |                     |             |             |      |             |              |
| Facility      | Storage            | SGR %               | 100%        | 100%        | 100% | 100%        | 100%         |
|               | Transfer Center    | SGR %               | 100%        | 100%        | 100% | 100%        | 100%         |
| Equipment     | Support Vehicles   | SGR %               | 78%         | 76%         | 94%  | 76%         | 78%          |
|               | Maintenance Equip  | SGR %               | 83%         | 82%         | 71%  | 82%         | 83%          |

***RIC adopted the West Virginia Department of Transportation (WVDOT) Transit Asset Performance Targets (above) on December 9, 2021.***

Definition of State of Good Repair (SGR) - WVDOT defines SGR as a system meeting the following criteria: All assets are functioning at their ideal capacity within their design life. The state's asset management system, AVIS, includes consistent, accurate and relatively current information on the status of each capital asset covered by the TAM. Each system has a maintenance program to ensure maintenance is performed per manufacturer requirements and intervals. No rolling stock assets are placed in revenue service with identified safety defects.

## Transit Safety Performance

Per federal requirements, operators of public transportation systems that are recipients of or subrecipients of Federal Transit Administration (FTA) 49 U.S.C. Section 5307 grant funds must maintain new safety plans under the Public Transportation Agency Safety Plan (PTASP). These safety plans must include performance targets that must be assessed annually and are to be coordinated with the applicable Metropolitan Planning Organization (MPO). The performance targets are based on the following safety performance criteria established under The National Public Transportation Safety Plan:

1. Fatalities – total number of reportable fatalities and rate per total vehicle revenue miles by mode
2. Injuries – total number of reportable injuries and rate per total vehicle revenue miles by mode
3. Safety events – total number of reportable events and rate per total vehicle revenue miles by mode
4. System reliability – mean distance between major mechanical failures by mode

Through continued coordination, the RIC MPO adopted Kanawha Valley Regional Transportation Authority (KVRTA) transit safety targets on December 9, 2021 as established in the November 2021 KVRTA PTASP:

### Kanawha Valley Regional Transportation Authority (KVRTA) Safety Performance Targets for Bus Service

| Safety Performance Category   | Target  |
|---|---|
| <b>Fatalities</b> (total number of NTD-reportable fatalities and rate per total vehicle revenue miles by mode)    | Less than .05 per 1,000,000 vehicle revenue miles   |
| <b>Injuries</b> (total number of NTD-reportable injuries and rate per total vehicle revenue miles by mode)        | Less than 10 major/minor injuries per 1,000,000 vehicle revenue miles   |
| <b>Safety events</b> (total number of NTD-reportable events and rate per total vehicle revenue miles by mode)     | Less than 10 major/minor reportable events per 1,000,000 vehicle revenue miles  |
| <b>System reliability</b> (measured as revenue miles operated divided by the number of major mechanical failures) | Distance between Major Failures: Greater than 80,000 miles<br>Distance between Minor Failures: Greater than 3,000 miles |

### Kanawha Valley Regional Transportation Authority (KVRTA) Safety Performance Targets for Demand Response Service

| Safety Performance Category   | Target  |
|---|---|
| <b>Fatalities</b> (total number of NTD-reportable fatalities and rate per total vehicle revenue miles by mode)    | Less than .05 per 200,000 vehicle revenue miles   |
| <b>Injuries</b> (total number of NTD-reportable injuries and rate per total vehicle revenue miles by mode)        | Less than 5 major/minor injuries per 250,000 vehicle revenue miles  |
| <b>Safety events</b> (total number of NTD-reportable events and rate per total vehicle revenue miles by mode)     | Less than 5 major/minor reportable events per 250,000 vehicle revenue miles   |
| <b>System reliability</b> (measured as revenue miles operated divided by the number of major mechanical failures) | Distance between Major Failures: Greater than 80,000 miles<br>Distance between Minor Failures: Greater than 3,000 miles |