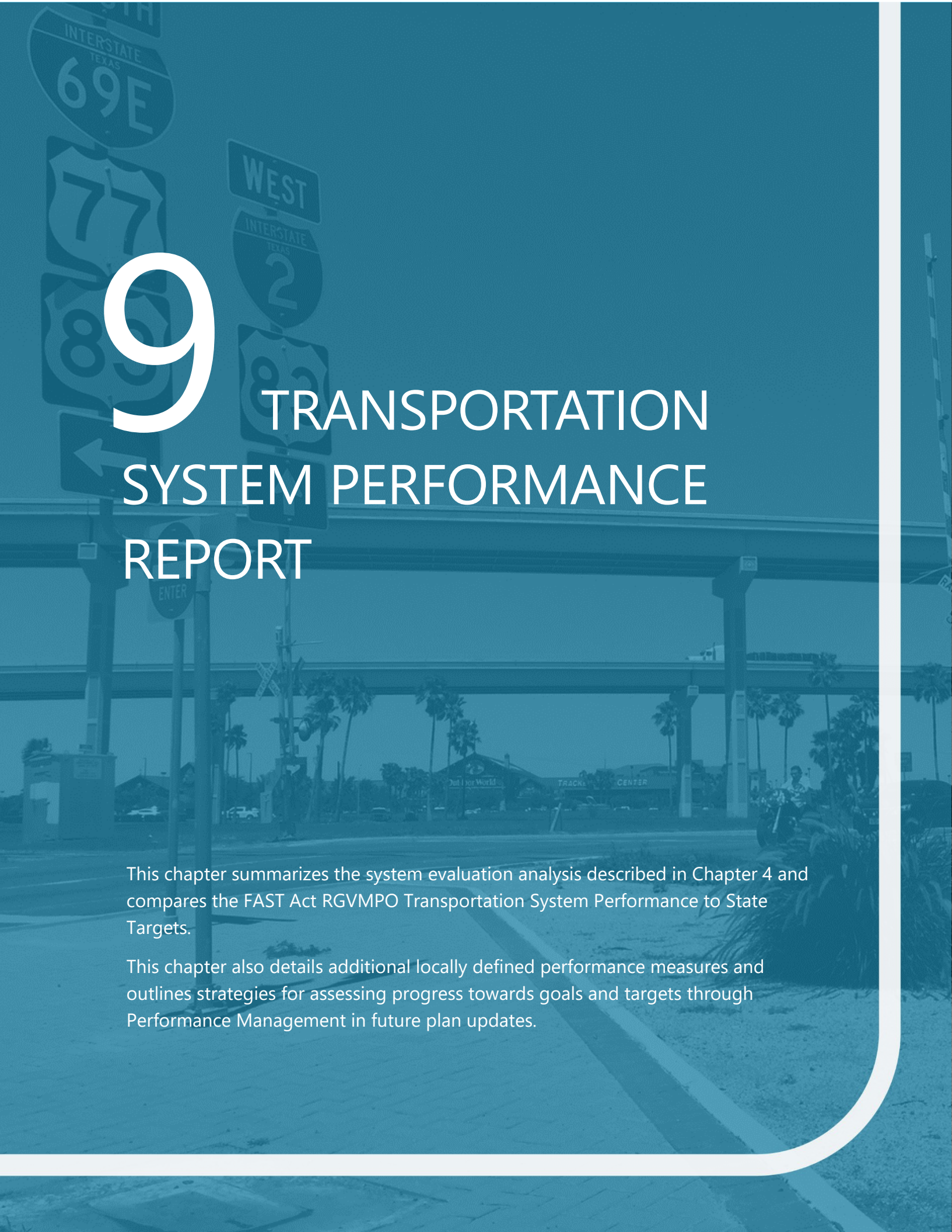


9 TRANSPORTATION SYSTEM PERFORMANCE REPORT

This chapter summarizes the system evaluation analysis described in Chapter 4 and compares the FAST Act RGVMPO Transportation System Performance to State Targets.

This chapter also details additional locally defined performance measures and outlines strategies for assessing progress towards goals and targets through Performance Management in future plan updates.

This chapter summarizes the system evaluation analysis described in Chapter 4 to provide the MTP Transportation Systems Performance Report. This report compares RGVMPO system performance vs. State performance targets and describes additional locally defined measures and strategies. For each of the applicable goals areas the chapter then discusses how these performance measures and targets are used in assessing performance of the transportation system resulting from the current RGVMPO 2045 MTP update.

The Rio Grande Valley Metropolitan Planning Organization (RGVMPO) has a responsibility to follow the Transportation Performance Management (TPM) guidelines provided by the Fixing America's Transportation (FAST) Act, which continues Moving Ahead for Progress in the 21st Century (MAP-21) Act TPM objectives. The Federal Highway Administration (FHWA) defines TPM as "a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals".

The implementation of TPM provides the following general benefits: [1]

- Enhanced investment decisions
  - Goals, measures, and data allow for organizations to make better informed decisions about how to invest in transportation funding at a multimodal level
  - Allows organizations to use taxpayer dollars as efficiently as possible
- Creates a better performing transportations system
  - Targets, plans, and reporting TPM results ensures accountability for system performance
  - Helps identify system strengths and deficiencies, highlighting areas in need of improvement and/or maintenance
- Produces safe, connected, and productive communities
  - Focuses on the safe and efficient delivery of people and goods
  - Emphasizes reliable commutes to work, school, recreation, and community activities

In order to do so, the RGVMPO strives to achieve targets set by the Texas Department of Transportation (TxDOT) compliant with FHWA rules, and continuously reports on progress towards these targets to align with federal and state regulations. RGVMPO performance reporting is accomplished primarily through the Metropolitan Transportation Plan (MTP) planning process, which performs detailed systems analyses to produce necessary TPM measures.

Previous Rio Grande Valley Area Performance Reporting

This transportation systems report is the first report covering the RGVMAB as a comprehensive study area and therefore documents the RGVMPO baseline transportation system performance. To gain historical perspective, interested parties can obtain additional information from earlier performance based planning reports developed by the three previous MPOs from which the RGVMAB was formed. This information is available in the consolidated MPO 2019 MTP update hosted on the current RGVMPO website.

[1] Source: https://www.fhwa.dot.gov/tpm/about/tpm.cfm

RGVMPO PERFORMANCE BASED PLANNING

The following sections represent federal performance measures for the current RGVMPO 2045 MTP update. This is the first set of performance measures attributed to the RGVMAB following the consolidation of the three former MPOs found in the region (HCMPO, HSBMPO, and BMPO). Accordingly, these performance measures serve as the baseline for the RGVMPO's TPM process.

The RGVMPO 2045 MTP update fulfills its TPM responsibility using Federal performance goals and measures, as well as compliant TxDOT performance measure targets to align with guidelines created by MAP-21 and continued by the FAST Act. The transportation system needs assessment provides existing target measures, which creates a base to understand the state of the current RGVMAB transportation system in comparison to assigned TxDOT targets. Additionally, this section describes the RGVMPO's approach to performance-based decision making to support the national goals described in 23 U.S.C. 150(b) discussed in chapter 2 and throughout this MTP.

To track progress towards goals, federal performance measures are continuously tracked in coordination with TxDOT's TPM targets (Table 9-1). Due to the RGVMPO's current air quality attainment status, the organization currently reports performance measures for 15 of the 18 federal performance measures.

These measures focus on the safety of the RGV Metropolitan Area Boundary (MAB) transportation network, condition and reliability of interstate and remaining National Highway System (NHS) infrastructure, and reliability of freight movement throughout the region. Data producing these measures derives from TxDOT's Crash Record Information System (CRIS), FHWA's National Performance Management Research Data Set (NPMRDS), and through coordination with regional FTA funded transit agencies.

Table 9-1: Federal Performance Measures applicable to RGVMPO

Goal Area	Measure
FHWA PM1 Safety	Number of Fatalities
	Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
	Number of serious injuries
	Rate of serious injuries per 100 million VMT
	Number of non-motorized fatalities
	Number of non-motorized serious injuries
FHWA PM2 Infrastructure Condition	Percentage of pavements of the Interstate System in Good condition
	Percentage of pavements of the Interstate System in Poor condition
	Percentage of pavements of the non-Interstate NHS in Good condition
	Percentage of pavements of the non-Interstate NHS in Poor condition
	Percentage of NHS bridges classified as in Good condition
	Percentage of NHS bridges classified as in Poor condition

Goal Area	Measure
FHWA PM3 System Performance/Freight/CMAQ	**System Performance:** Percentage of person-miles traveled on the Interstate that are reliable (LOTTR)
	System Performance: Percentage of person-miles traveled on the non-Interstate NHS that are reliable (LOTTR)
	Freight Movement: percentage of Interstate system mileage providing for reliable truck travel time (TTTRI)
	***CMAQ:** Annual Total Tailpipe CO2 Emission on NHS
	***CMAQ:** Annual Hours of Peak Hour Excessive Delay (PHED) per capita
	***CMAQ:** Percent of Non-SOV Travel on network
FTA Transit Asset Management (TAM)	Percentage of revenue vehicles (by type) that exceed useful life benchmark (ULB)
	Percentage of non-revenue service vehicles (by type) that exceed ULB
	Percentage of facilities (by group) rated less than 3.0 on Transit Economic Requirements Model (TERM) scale
FTA Public Transportation Agency Safety Plan (PTASP)	Total number of reportable fatalities
	Rate of reportable fatalities per total vehicle revenue miles by mode
	Total number of reportable injuries
	Rate of reportable injuries per total vehicle revenue miles by mode
	Total number of reportable events
	Rate of reportable events per total vehicle revenue miles by mode
	Mean distance between major mechanical failures by mode

**Applies to areas designated as nonattainment or maintenance for ozone, carbon monoxide or particulate matter.*

Category 7 Scoring

In addition to the continuous comprehensive coordination on regional needs for UTP funding categories with the Pharr TxDOT district mentioned in chapter 8, the RGVMPO has also developed a performance based scoring process for projects submitted for Category 7 funding consideration.

A spectrum of methods exist for prioritizing projects using data and performance based planning (PBP) principles. Regardless of the method, the various factors and considerations that contribute to the process of applying existing and historical performance measures to the evaluation of expected performance of proposed investments rely on one core principle which is using and referencing data to perform due diligence in assessing expected performance of investments as much as is possible.

The PBP project scoring process applies due diligence by reviewing contributing factors and applying technical expertise to gauge and score how well proposed improvements will contribute to national, state, and regional goals and targets in order to improve the system. The RGVMPO staff have coordinated extensively with the Technical Advisory Committee to develop scoring criteria that reflect the regional and national priorities.

Through an iterative discussion, the RGVMPO staff and TAC refined a scoring for Category 7 projects to both leverage the technical expertise embodied in the TAC and reference performance criteria and regional goals to provide a robust scoring process for vetting and promoting projects geared to contribute towards targets.

This scoring process likewise provides a platform to communicate with project sponsors and decision makers about project implications. The process also investigates what conditions a proposed project is improving and asks the sponsor to reflect on why they are submitting the project being reviewed. The continuity of this process invariably will refine and improve the process by which projects are submitted for consideration as well as the projects themselves.

Table 9-2 shows the Scoring Criteria used by the staff and TAC when evaluating the submitted projects. The table contains evaluation criteria, the maximum points a project can receive for each criteria, the description and factors related to each criteria, and the evaluation method that instructs evaluators on how to assign points to the projects based on the criteria.

Table 9-2: RGVMPO Category 7 Scoring Criteria

Evaluation Criteria	Evaluation Method - Scoring	Goal Area
Increased Safety	Submitting sponsor is asked to provide explanation of Safety improvements and attach available supportive documentation. Project reviewed against safety data and regional contributing factors. **10 Points**	Safety
Fills gaps in current roadway network	Submitting sponsor is asked to provide explanation of Roadway Network Gaps Filled and attach available supportive documentation. **10 Points**	Connectivity (people & freight)
Regionally Significant	Within Local Government, **0 Points** Connects 2 Local Governments, **5 Points** Connects 3 or more Local Governments, **10 Points**	
Increases economic development opportunities	Submitting sponsor is asked to provide explanation of Economic Development Opportunities and attach available supportive documentation. **10 Points**	Freight Movement and Economic Vitality
Corridor completes or aides International Trade / Port Connectivity	Submitting sponsor is asked to provide explanation of corridor relation to international trade / port connectivity and attach available supportive documentation. **10 Points**	

Evaluation Criteria	Evaluation Method - Scoring	Goal Area
Access to Transit Facility in Miles	Project distance from transit facility in miles Greater than .75, **0 Points** 0.5 to 0.75, **2 Points** 0.25 to 0.5, **5 Points** 0 to 0.25, **10 Points**	Mobility and Accessibility (Increase multi-modal options)
Access to Pedestrian Facility in Miles (Bicycle / Trail)	Project distance from pedestrian facility in miles Greater than .75, **0 Points** 0.5 to 0.75, **2 Points** 0.25 to 0.5, **5 Points** 0 to 0.25, **10 Points**	
Adds Sidewalks	None, **0 Points** One Side, **5 Points** Both Sides, **10 Points**	
Most Recent ADT Count	1000 - 5000, **5 Points** 5000 - 10000, **10 Points** 10000 - 15000,**15 Points** 15000 - 40000, **20 Points**	
* Congestion Reduction	*For Internal Use (Based on TDM) 0-25%, **5 Points** 25-50%, **10 Points** 50-75%, **15 Points** 75-100%, **20 Points**	Congestion Reduction and System Reliability
* Improves Travel Time *	*For Internal Use (Based on TDM) Less than 10%, **0 Points** 10% - 20%, **5 Points** Greater than 20%, **10 Points**	
ROW Status	Pending, **0** Started, **5** Complete, **10**	Reduced Project Delivery Delays
Environmental Status	Pending, **0** Started, **5** Complete, **10**	
Project Schematic Status	Pending, **0** Started, **5** Complete, **10**	
Local Match Available	Pending, **0** Started, **5** Complete, **10**	
Total Points	**170**	

Transportation Alternatives Set Aside (TASA) Scoring

RGVMPO uses a set of specific criteria to evaluate and score projects submitted for TASA funding in the MAB to ensure an equitable and calculated approach for prioritizing projects. Table 9-3and Table 9-4 show the Scoring Criteria used by the BPAC and TAC when evaluating the submitted projects. The table contains evaluation criteria, the maximum points a project can receive for each criteria, the description and factors related to each criteria, and the evaluation method that instructs evaluators on how to assign points to the projects based on the criteria.

Table 9-3: RGVMPO TASA Scoring Criteria

Evaluation Criteria	Description/Factors	Evaluation Method
Improving Safety (Please use whole numbers)	Provides safer and less intimidating facilities for pedestrians, bicyclists, or other non-drivers by improving safety in areas with high numbers of crashes. This involves improved crossing, signalization, traffic calming and other safety improvements.	**13 PTS** - Improves safety in area with high # of crashes within a block (300ft) **8 PTS** - Improves mobility for elderly, disabled, and/or youth (disadvantaged population) **8 PTS** - Improves visibility of non-drivers to vehicular traffic
Making Linkages and Connections (Please use whole numbers)	Improves connections between neighborhoods, cities, transit services, bicycle facilities, or schools. This can be achieved through gap closures, extension of regional facilities, linking multiple jurisdictions, and providing access to rail stations, bus stops, & bicycle facilities via trails and sidewalks.	**6 PTS** - Connects other cities/ neighborhoods **6 PTS** - Connects to schools/public building **6 PTS** - Extends existing system (bike/ped/transit) **6 PTS** - Eliminates gaps in system (bike/ped/transit)
Incorporates Pedestrian and Bicycle Design Enhancements and Promotes Active Living (Please use whole numbers)	Provides pedestrian and bicycle areas with landscaping, sidewalk design, crossing treatments, street furniture, bike racks, or lighting which encourages pedestrian and cyclists to utilize area, thus providing health and environmental benefits	**5 PTS** - Provides design enhancements **5 PTS** - Provides bicycle parking/ seating for pedestrians, rest areas **5 PTS** - Provides trailheads, staging area and parking
Implementing Active Transportation or Mobility Plan (Please use whole numbers)	Improves ability to use walking and bicycling facilities for everyday activities including travel to work, school, and shopping as described in RGVMPO's Regional Bike Plan, Regional Pedestrian Plan, Regional Transit Plan, or other related community Master Plan adopted by a city or county's governing body	**4 PTS** - City Plan **3 PTS** - Regional Plan **3 PTS** - MPO Plan

Evaluation Criteria	Description/Factors	Evaluation Method
Connecting to Employment, Households, and Activity Centers. Activity Centers include schools, gyms, birding centers, parks, Boys and Girls Club, etc. (Please use whole numbers)	Provides access to major entertainment destinations, parks & recreation, residencies, and general businesses for large numbers of residents and/or employees.	**4 PTS** - Improves access to commercial areas **4 PTS** - Improves access to parks and recreational areas **4 PTS** - Improves access to educational areas
Serving Disadvantaged (Environmental Justice) Areas (Please use whole numbers)	Provides access for underserved communities	**10 PTS** - Improves access to areas of commerce within or adjacent to 50% of households below poverty rate, as defined by Census
	Total Points	**0 to 100 Points**

Table 9-4: RGVMPO TASA 'Above and Beyond Criteria'

Evaluation Criteria	Evaluation Method
Local Match is: (Please use whole numbers)	• **2 PTS** = 21-30% • **4 PTS** = 31-40% • **6 PTS** = 41-50% • **8 PTS** = 51-60% • **10 PTS** = Above 61%
Project Readiness: PS&E, ROW (Please use whole numbers)	• **1 PT -** If ROW acquisition is 90% complete or not required • **2 PTS -** PS&E is at least 90% Complete
Funding completes the project (Please use whole numbers)	• **5 PTS -** Yes
Location of project has safe passing ordinance (Please use whole numbers)	• **2 PTS -** Yes
Total Points	**120 Points**

RGVMPO 2045 MTP Update Performance Reporting

For each federal performance goal area relevant to the RGVMPO, current performance measures are compared to existing TxDOT targets, providing the status of the MPO's progress towards meeting the established targets. All recorded performance measures derive from the most up-to-date and readily available data.

PM1 Safety Performance

Current safety performance measures are presented in Table 9-5 below:

Table 9-5: Safety Performance Measures

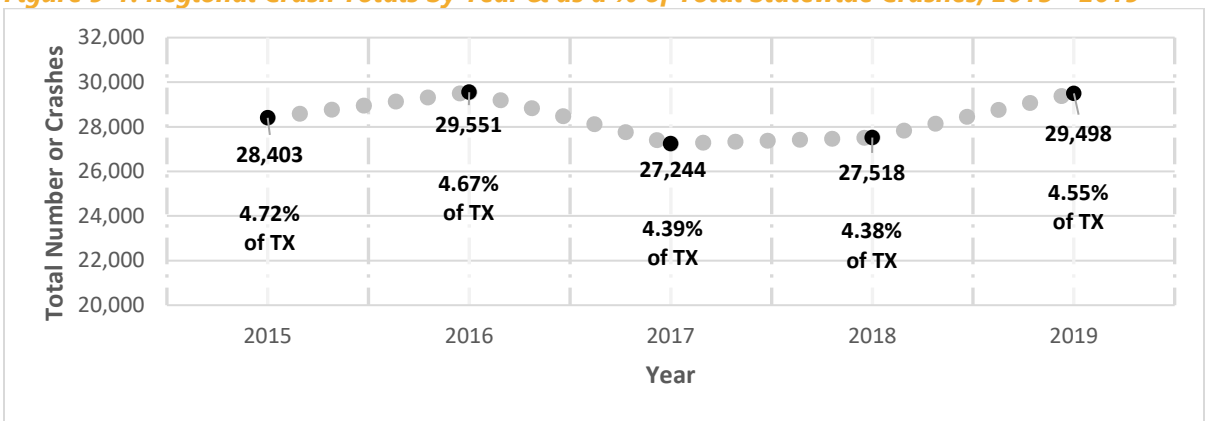
Measures	RGVMPO	2020 TxDOT Target	2030 TxDOT Target
Number of fatalities	88	3,840	2,280
Rate of fatalities per 100 million Vehicle Miles Traveled (VMT)	0.20	1.406	0.70
Number of serious injuries	393.6	17,394	-
Rate of serious injuries per 100 million VMT	0.90	6.286	-
Number of non-motorized fatalities	24.6	*	
Number of non-motorized serious injuries	55.2	*2,285	

**Target represents combined Non-Motorized Fatalities & Serious Injuries*

REGIONAL CRASH TRENDS

Between 2015 and 2019, a total of 142,216 crashes occurred within the RGVMAB. Over this five-year period, the total number of crashes per year has remained between the range of 27,000 to 30,000, with the largest single-year total (29,551) occurring in 2019. The region experienced an 8% decrease in the total number of crashes between 2016 and 2017 and a 7% increase between 2018 and 2019. Figure 9-1 summarizes the annual number of reported crashes in the region between 2015 and 2019.

Figure 9-1: Regional Crash Totals by Year & as a % of Total Statewide Crashes, 2015 - 2019



ASSESSMENT OF PROGRESS

RGVMPO PM1 performance measures, specifically rate of fatalities per 100 million VMT and Rate of serious injuries per 100 million VMT are currently below 2020 TxDOT targets suggesting successful regional safety performance. The remaining four measures are not included in the TxDOT 2030 targets, however, should be continuously tracked to better understand RGVMPO safety performance as they are federally required performance measures. They also provide important insight into other harmful incidents related to automobiles as well as active transportation modes of transportation.

As noted in the Safety Analysis portion of chapter 4, though regional rate if fatality and serious injury are relatively low compared to statewide performance targets, the percentage of non-motorized users involved in fatal and sever crashes warrants a focus on bicycle and pedestrian safety and infrastructure improvements. Strategies to address these needs are implemented through the TASA scoring process as well as the RGVMPO Active Transportation Plan.

PM2 Infrastructure Condition Performance

Current infrastructure condition performance measures are presented in Table 9-6 below:

Table 9-6: Infrastructure Condition Performance Measures

Measures	2019 Value - RGVMPO	2019 TxDOT Target	2030 TxDOT Target*
Percentage of pavements of the Interstate System in good condition.	84%	92.2%	--
Percentage of pavements of the Interstate System in poor condition.	1%	-	--
Percentage of pavements of the non-Interstate NHS in good condition.	57%	52%	-
Percentage of pavements of the non-Interstate NHS in poor condition.	9%	14.3%	-
Percentage of NHS bridges classified as in good condition.	51%	50.58%	-
Percentage of NHS bridges classified as in poor condition.	0%	0.8%	-

*TxDOT Targets represent 2030 available reported targets as published in 2021

ASSESSMENT OF PROGRESS

RGVMPO PM2 performance measures currently all meet or contribute to TxDOT available reported targets. Percent of pavements of the non-interstate NHS in good condition demonstrates successfully achieving the target by exceeding the target by 5%, while percentage in poor condition demonstrates successfully achieving the target by measuring below the TxDOT target by roughly 5%. Similarly, percentage of NHS bridges classified as in good condition successfully measures just above the TxDOT target, while those classified as in poor condition successfully measure at 0%, which is 0.8% below target. Percentage of pavement of the Interstate System in good and poor condition should continue to be monitored, not just because it is a federally required performance measures, but also because it provides the MPO and decision-makers with information on pavement conditions for some of the region's most heavily used roadways (e.g. I-2).

PM3 System Performance & Freight Reliability Performance

Current safety performance measures are presented in **Table 9-7** below:

Table 9-7: System Performance and Freight Reliability Performance Measures

Measures	2019 Value - RGVMPO	2020 TxDOT Target	2030 TxDOT Target*
Percentage of person-miles traveled on the interstate that are reliable.	94%	61.2%	
Percentage of person-miles traveled on the non-Interstate NHS that are reliable.	88%		
Truck Travel Time Reliability Index (TTTRI)	1.39	1.7	

* TxDOT Targets represent 2030 available reported targets as published in the 2021

ASSESSMENT OF PROGRESS

While TxDOT currently does not provide targets for 2030 PM3 targets, it is critical for the RGVMPO to continue to monitor percentage of person-miles traveled on the interstate that are reliable and unreliable, as well as TTTRI. These are federally required performance measures and provide the region with information that suggests which segments of interstate roadway may be inconsistently congested and cause increased delays for both automobile and freight traffic.

Additional Performance Measures

The RGVMPO also calculates and monitors performance measures additional to those provided in the FAST Act TPM guidelines. Incorporating additional measures which summarize regional performance and trends further helps decision-makers make enhanced investment decisions. This in turn leads to a better performing transportation system which produces safe, connected, and productive communities within the RGVMAB.

Travel Demand Model Performance Measures

These additional performance measures derive from the RGVMPO TDM and provide further information on system congestion in terms of delay. The measures help bolster the NPMRDS national performance measure information for existing multimodal transportation system conditions. Explanations for each measure can be found in Chapter 4. Table 9-8 through Table 9-10 display the additional performance measures provided by the RGVMPO. Current year (2019 E+C) outputs were compared to both the 2045 no-build (Table 9-8) and build outputs (Table 9-9) to emphasize potential issues on the RGVMAB roadway network, as well as highlight expected improvements and performance resulting from the implemented set of MTP projects (2045 build scenario).

Table 9-8: RGVMPO TDM Performance Measures – E+C No Build Analysis

Measures	2019 – Existing Conditions*			2045 – No Build			% Change for Totals
	Interstate & Toll	Arterials	Total	Interstate & Toll	Arterials	Total	
Daily VMT**	1,253	3,659	4,912	2,030	6,501	8,531	74%
per person			3.44			3.69	7%
Daily VHT	28,422	124,215	152,637	70,253	763,769	834,022	446%
per person			0.11			0.36	237%
Annual Weekday Vehicle Hours of Delay**	1,019	9,157	10,176	7,998	196,716	204,714	1912%
per person			7.13			88.53	1142%
Weighted Avg. TTI	1.17	1.61	1.39	1.84	6.79	4.32	211%

**2019 was used as stand in for current conditions because it is the most recent year for which complete data is available*

***VMT & Annual Weekday Vehicle Hours of Delay represent metrics/1,000 and rounded to nearest whole number*

Table 9-9: RGVMPO TDM Performance Measures – Build Analysis

Measure	2019 – Existing Conditions*			2045 – Build			% Change for Totals
	Interstate & Toll	Arterials	Total	Interstate & Toll	Arterials	Total	
Daily VMT**	1,253	3,658	4,911	1,932	6,668	8,600	75%
per person			3.44			3.72	8%
Daily VHT	28,422	124,215	152,637	57,739	379,881	437,621	187%
per person			0.11			0.19	77%
Annual Weekday Vehicle Hours of Delay**	1,019	9,157	10,176	5,154	72,227	77,381	660%
per person			7.13			33.46	369%
Weighted Avg. TTI	1.17	1.61	1.39	1.18	1.06	1.12	45%

**2019 was used as stand in for current conditions because it is the most recent year for which complete data is available*

***VMT & Annual Weekday Vehicle Hours of Delay represent metrics/1,000 and rounded to nearest whole number*

Table 9-10 compares the E+C No Build with the Build network, which is comprised of the capacity projects represented in the current MTP. The difference in the metrics between No-Build and Build scenarios helps provide a decision-making tool to gauge expected improvements in reducing congestion and delay for future demographic, job growth, and land use scenarios represented in the TDM.

Table 9-10: RGVMPO TDM Performance Measures – E+C No Build Vs Build Analysis

Measure	2045 – No Build			2045 – Build			Change from No Build
	Interstate & Toll	Arterials	Total	Interstate & Toll	Arterials	Total	
Daily VMT**	2,030	6,501	8,531	1,932	6,668	8,600	0.81%
per person			3.69			3.72	1%
Daily VHT	70,253	763,769	834,022	57,739	379,881	437,621	-48%
per person			0.36			0.19	-47%
Annual Weekday Vehicle Hours of Delay**	7,998	196,716	204,714	5,154	72,227	77,381	-62%
per person			88.53			33.46	-62%
Weighted Avg. TTI	1.84	6.79	4.32	1.18	1.06	1.12	-74%

***VMT & Annual Weekday Vehicle Hours of Delay represent metrics/1,000 and rounded to nearest whole number*

ASSESSMENT OF PROGRESS

The comparison of the no-build and build TDM outputs suggests substantial improvements created by the build scenario across a majority of the measures. Negative values are highlighted in darker green as they represent measures that have decreased after project implementation, and therefore project decreases in regional and per capita congestion and delay. Only Daily VMT at the regional and per capita level show increases, however, these are incremental as they do not exceed 1%. All other measures are projected to decrease significantly with the implementation of RGVMPO capacity projects.

Transit Performance Measures

Moving Ahead for Progress in the 21st Century (MAP-21) granted the Federal Transit Administration (FTA) the authority to establish and enforce a comprehensive framework to oversee the safety of public transportation throughout the United States. MAP-21 expanded the regulatory authority of FTA to oversee safety, providing an opportunity to assist transit agencies in moving towards a more holistic, performance-based approach to Safety Management Systems (SMS). This authority was continued through the Fixing America's Surface Transportation Act (FAST Act).

In compliance with MAP-21 and the FAST Act, FTA promulgated a Public Transportation Safety Program on August 11, 2016 that adopted SMS as the foundation for developing and implementing a Safety Program. FTA is committed to developing, implementing, and consistently improving strategies and processes to ensure that transit achieves the highest practicable level of safety. SMS helps organizations improve upon their safety performance by supporting the institutionalization of beliefs, practices, and procedures for identifying, mitigating, and monitoring safety risks.

There are several components of the national safety program, including the National Public Transportation Safety Plan (NSP), that FTA published to provide guidance on managing safety risks and safety hazards. One element of the NSP is the Transit Asset Management (TAM) Plan. Public transportation agencies implemented TAM plans across the industry in 2018. The subsequent final ruling by FTA to implement the NSP is the Public Transportation Agency Safety Plan (PTASP) rule, 49 CFR Part 673, and guidance provided by FTA.

PTASP PERFORMANCE MEASURES

Safety is a core business function of all public transportation providers and should be systematically applied to every aspect of service delivery. For the transit agencies within the RGVMAB, all levels of management, administration and operations are dedicated to and responsible for the safety of their clientele and themselves. To improve public transportation safety to the highest practicable level in the State of Texas and comply with FTA requirements, the Texas Department of Transportation (TxDOT) has developed individual Agency Safety Plans (ASP) in collaboration with the Rio Grande Valley Metropolitan Planning Organization (MPO), and the three primary Section 5307 Public Transportation Providers in the RGVMAB.

To ensure that the necessary processes are in place to accomplish both enhanced safety at the local level and the goals of the NSP, The City of Brownsville and B-Metro, City of McAllen and Metro McAllen, and the Lower Rio Grande Valley Development Council (LRGVDC), dba Valley Metro all have recently adopted their respective PTAPs and the tenets of SMS including a Safety Management Policy (SMP) and the processes for Safety Risk Management (SRM), Safety Assurance (SA), and Safety Promotion (SP), per 49 U.S.C. 5329(d)(1)(A).[2] Though the RGVMPO is not yet required to report these targets, they have been included and considered throughout the planning process.

[2] Federal Register, Vol. 81, No. 24

Table 9-11: Rio Grande Valley 5307 Agencies: PTASP Performance Measures Table 9-11 displays the five-year average safety performance measures by mode of service provided by each agency. The modes of service represented in the table are fixed route, flex route, and demand response (DR). As the development and implementation of SMS is a relatively new requirement, each agency has also elected to maintain the benchmark performance as the first reporting year's target.

Table 9-11: Rio Grande Valley 5307 Agencies: PTASP Performance Measures

Measure/Target	B Metro		Metro McAllen		Valley Metro	
	Fixed Route	DR	Fixed Route	DR	Flex Route	DR
Total number of reportable fatalities	0	0	0	0	0	0
*Rate of reportable fatalities per total vehicle revenue miles by mode	0	0	0	0	0	0
Total number of reportable injuries	5.8	2	35	0	5.6	1
*Rate of reportable injuries per total vehicle revenue miles by mode	0.78	1.26	1.5	0	0.28	0.72
Total number of reportable events	0	0	36	0	6.2	1.2
*Rate of reportable events per total vehicle revenue miles by mode	0	0	1.5	0	0.31	0.87
Mean distance between major mechanical failures by mode	4,175	18,468	4,114	81,795	82,200	57,738

*rate = total number x 100,000/total revenue vehicle miles traveled

ASSESSMENT OF PROGRESS

Because the rule establishing safety performance targets for urban transit agencies is a new requirement, as of yet there is no measurable assessment of progress. RGVMPO coordination and participation in the RTAP will help provide a clearinghouse for transit capacity and safety grant coordination and will ensure ongoing maintenance and evaluation of these metrics.

TRANSPORATION ASSET MANAGEMENT (TAM) PERFORMANCE MEASURES

Following the FAST Act, a 2015 FTA study found that about 40 percent of buses and 23 percent of rail transit assets were listed in marginal or poor condition, with a total backlog of around 90 billion dollars. Thus, the FTA took action to prevent further deterioration of public transit networks. In July 2016, TAM plans were codified as a legal requirement for transit agencies receiving FTA funding that provide open public transportation. Given limited funding, this framework establishes procedures and guidance for all public transportation networks to move towards a state of good repair.

The majority of transit assets owned or managed by the qualifying FTA-funded (Federal Transit Administration) public transportation providers in the RGVMAB are in good condition.

The transit providers in the RGVMAB are dedicated to continuously providing transportation solutions for accessibility to employment, education, medical care, grocery stores, and other services. With limited funding and a growing backlog of needs, it is critical to maximize existing resources, maintain a State of Good Repair (SGR), and provide the tools necessary for Public Transportation providers to provide safe, reliable, and cost-effective services.

Though asset management is a data focused endeavor, developing a plan is a collaborative process, requiring coordination and data sharing from many different agencies with different operating systems and reporting processes. Table 9-12 through Table 9-14 represent the TAM targets of the three 5307 transit agencies in the RGVMAB.

Table 9-12: B-Metro TAM Targets

Measure	Asset Class	2021	2022
Revenue			
% of revenue vehicles within a particular asset class that have met or exceeded their useful life benchmark	Bus	0%	11%
	Cutaway	0%	7%
Equipment			
% of vehicles within a particular asset class that have met or exceeded their useful life benchmark	Non-revenue/service automobile	0%	0%
Facilities			
Condition - % of vehicles with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) Scale	Administration	0%	5%
	Maintenance	0%	2%
	Parking Structures	0%	2%
	Passenger Facilities	5%	0%

Table 9-13: Metro McAllen TAM Targets

Measure	Asset Class	2021	2022	2023	2024

Revenue					
% of revenue vehicles within a particular asset class that have met or exceeded their useful life benchmark	Bus	0%	20%	12%	8%
	Cutaway	0%	0%	0%	0%
	Sport Utility Vehicle	0%	0%	0%	0%
Equipment					
% of vehicles within a particular asset class that have met or exceeded their useful life benchmark	Non-revenue/service automobile	0%	0%	0%	0%
	Trucks and other Rubber Tire Vehicles	0%	0%	0%	0%
Facilities					
Condition - % of vehicles with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) Scale	Administration	0%	0%	0%	0%
	Maintenance	0%	0%	0%	0%
	Parking Structures	0%	0%	0%	0%
	Passenger Facilities	0%	0%	0%	0%

Table 9-14: Valley Metro TAM Targets

Measure	Asset Class	2021	2022	2023
Revenue				
% of revenue vehicles within a particular asset class that have met or exceeded their useful life benchmark	Bus	1%	1%	1%
	Cutaway	14%	14%	14%
	Van	36%	36%	36%
Equipment				
% of vehicles within a particular asset class that have met or exceeded their useful life benchmark	Non-revenue/service automobile	1%	1%	1%
Facilities				
Condition - % of vehicles with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) Scale	Administration	1%	1%	1%
	Maintenance	1%	1%	1%
	Parking Structures	1%	1%	1%

ASSESSMENT OF PROGRESS

As the goal of TAM targets is preservation of the conditions of public transportation vehicles and facilities and moving to a State of Good Repair priority, maintenance and capital projects for transit

have a positive effect in moving TAM performance targets. Ultimately, Transit is an integral part of the multimodal network for the region and dependability is a key factor. Target achievement is based upon the actual conditions derived from the region's public transit providers, as reported in Transit Asset Management Plans, as of July 2020. For all three reporting agencies, targets are manageable for all four transit asset performance areas, though with expected reductions in funding, in some instances future targets reflect a managed decline in SGR.