

Transportation Performance Management

Connecting Communities – Shaping Our Future

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1.0 Performance Management

The Capital Region Planning Commission (CRPC) MOVE 2046 Metropolitan Transportation Plan (MTP) follows the principles of performance-based planning and programming and related federal regulations laid out in MAP-21 and the FAST Act. These performance-based regulations require all Metropolitan Planning Organizations (MPOs) to track specific transportation performance measures related to national goals and to set targets for these measures.

The scorecard on the following pages displays the MPO's baseline performance, with comparisons to the state's baseline performance and CRPC targets. As the MPO for the Baton Rouge Metropolitan Planning Area (MPA), CRPC has chosen to establish targets for the different transportation performance measures.

This report also discusses future actions that the MPO can take to improve regional performance to satisfy the established CRPC targets. As such, CRPC can develop strategies for each specific performance parameter based on the comparison with established targets to help the MPO to improve in the different performance's areas.

This report only addresses the specific performance measures required by federal transportation performance management regulations. A more complete assessment of current transportation conditions can be found in the MOVE 2046 existing conditions analysis technical report.



Source: Fatality Analysis Reporting System (FARS); Louisiana Department of Transportation and Development (DOTD)



Source: Fatality Analysis Reporting System (FARS); Louisiana Department of Transportation and Development (DOTD)



Source: DOTD; National Bridge Inventory (NBI)

Note: The FAST Act states that for the first performance period only, the state baseline condition and 2-year targets are not required for the Pavements on the Interstate System measures.

System Performance Measures (PM3)									
Measure	MPO Target	2018 Trends/Results	Score	Analysis					
Percent of Person- Miles Traveled on the Interstate that are Reliable	74.4 %	74.4% 92.9% 89.6%		The percent of person-miles travelled on the Interstate performs better than the MPO target and somewhat above State performance.					
Percent of Person- Miles Traveled on the Non-Interstate NHS that are Reliable	75.2	75.2% 92.8% N/A MPA LA Target	7	The percent of person-miles travelled on the Non-Interstate NHS performs better than the MPO target.					
Truck Travel Time Reliability (TTTR) Index on the Interstate	2.01	2.01		The TTTR of the MPA performs better than the MPO target but somewhat worse than the State.					

Source: National Performance Management Research Data Set (NPMRDS)

Note: The FAST Act states that for the first performance period only, the state baseline condition and 2-year targets are not required for the Pavements on the Non-Interstate NHS measures.



Transit Safety										
Measure	Mode	MPO Target	5-Year MPA Average	2016-2020 Trends/Results			Score	Analysis		
Number of Fatalities by Mode	Demand Responsive	0.0	0.0	0.0 0.0 2016	0.0 2017 Target	0.0 2018 5-yea	0.0 2019 ar MPA Average	0.0 2020		There were no fatalities in Demand Responsive Transit from 2016-2020, performing better than the MPO target.
	Motor Bus	0.0	0.0	0.0 0.0 2016	0.0 2017 Target	0.0 2018 5-yea	0.0 2019 ar MPA Average	0.0 2020		There were no fatalities in Motor Bus Transit from 2016-2020, performing better than the MPO target.
Rate of Fatalities per 100,000 Total Vehicle Revenue Miles by Mode	Demand Responsive	0.0	0.0	0.0 0.0 2016	0.0 2017 Target	0.0 2018 5-yea	0.0 2019 ar MPA Average	0.0 2020		The fatality rate in Demand Responsive Transit performed better than the MPO target.
	Motor Bus	0.0	0.0	0.0 0.0 2016	0.0 2017 Target	0.0 2018 5-yea	0.0 2019 ar MPA Average	0.0 2020		The fatality rate in Motor Bus Transit performed better than the MPO target.
Number of Injuries by Mode	Demand Responsive	0.0	0.6	0.6 0.0 2016	0.0 2017 Target	0.0 2018 5-ye;	3.0 2019 ar MPA Average	0.0 2020	-	The number of injuries in Demand Responsive Transit performed worse than the MPO target, exceeding it.
	Motor Bus	17	21.4	21.4 17.0 17.0 2016	27.0 2017 Target	28.0 2018 5-ye;	15.0 2019 ar MPA Average	20.0 2020		The number of injuries in Motor Bus Transit exceeded the MPO target.

Transit Safety							
Measure	Mode	MPO Target	5-Year MPA Average		2016-2020 Trends/Results	Score	Analysis
Rate of Injuries per 100,000 Total Vehicle Revenue Miles by Mode	Demand Responsive	0.0	0.07	0.07 0.0 2016	0.00 0.00 0.00 2017 2018 2019 2020 Target 5-year MPA Average		The rate of injuries per 100,000 miles in Demand Responsive Transit performed worse than the MPO target, exceeding it.
	Motor Bus	0.52	0.70	0.70 0.52 0.53 2016	0.81 0.87 0.78 2017 2018 2019 2020 Target 5-year MPA Average		The rate of injuries per 100,000 miles in Motor Bus Transit exceed the MPO target, with only 2019 performing better than the target.
Number of Safety Events by Mode	Demand Responsive	0.25	0.8	0.8 0.3 2016	3.0 1.0 0.0 2017 2018 2019 2020		The number of safety events in Demand Responsive Transit exceeded the MPO target.
	Motor Bus	10.0	18.8	18.8 10.0 17.0 2016	21.0 28.0 15.0 13.0 2017 2018 2019 2020 Target 5-year MPA Average		The number of safety events in Motor Bus Transit exceeded the MPO target in every year.
Rate of Safety Events per 100,000 Total Vehicle Revenue Miles by Mode	Demand Responsive	0.03	0.1	0.19 0.03 2016	0.00 0.00 0.00 2017 2018 2019 2020 Target 5-year MPA Average		The rate of safety events per 100,000 miles in Demand Responsive Transit exceeded the MPO target.
	Motor Bus	0.31	0.63	0.63 0.53 0.53 2016	0.45 0.65 0.43 1.09 2017 2018 2019 2020 Target 5-year MPA Average	~	The rate of safety events per 100,000 miles in Motor Bus Transit exceeded the MPO target in every year.



2.0 Future MPO Actions

2.1 Safety Performance

The MPO meets all established safety performance targets. To improve performance, continue meeting targets, and support statewide performance, the MPO must reduce fatalities and serious injuries on its roadways. Efforts the MPO may undertake to reduce fatalities and serious injuries (and their corresponding rates) includes:

- Keep the roadways and bridges maintained and as congestion-free as possible.
- Work with state and local officials, as well as other safety stakeholders, to reduce the fatalities and serious injuries on the roadways.
- Coordinate with LADOTD during development of the state's Highway Safety Improvement Program (HSIP).
- Ensure that transportation projects and safety improvements are coordinated with the state's Strategic Highway Safety Plan (SHSP).
- Identify safety programs that may be implemented and coordinate with state and local partners to secure funding and implementation.
- Consider how projects placed in the Transportation Improvement Program will impact safety.
- Prioritize projects which maximize safety benefits.

2.2 Bridge/Pavement Performance

The MPA does not meet some of the CRPC targets for Interstate and Non-Interstate National Highway System (NHS) pavements in poor condition on the reported segments. To improve the pavement condition performance on the roadways and achieve the established target, the MPO should:

- Prioritize timely repairs and resurfacing of pavement on routes with deteriorating pavement conditions when they arise.
- Work with state and local stakeholders to identify and repair pavement cracking, rutting, potholes, etc.
- Reduce or eliminate heavy vehicle traffic on the affected roadways by establishing designated truck routes on roadways with better pavement conditions.

- Use the local Intelligent Transportation Systems (ITS) infrastructure to monitor roadway conditions and redirect drivers to less congested routes, reducing vehicle loads and deterioration of pavement conditions.
- Employ Travel Demand Management (TDM) strategies.

The MPA meets the CRPC targets for Interstate and Non-Interstate NHS bridges in good and poor conditions and exceeds the state's performance. For the MPO to continue meeting the established targets, it will need to place emphasis on repairing or replacing bridges in poor condition, prioritizing those already in poor condition through the MTP's operation and maintenance budget. This will also increase safety and system performance and avoid costlier repairs in the future.

Where possible, the MPO, in coordination with LADOTD, should apply for applicable federal grants to aid with obtaining funds for bridge repairs and maintenance. While there is no guarantee of receiving these funds, they would allow the MPO to expedite repairs and allow as many bridges as possible to be repaired to good condition.

2.3 System Performance

Roadway reliability on the Interstates and Non-Interstate NHS routes within the MPA met the CRPC targets. To maintain or improve the current performance, the MPO should:

- Work with law enforcement to remove crashes from travel lanes, reducing congestion.
- Use ITS to advise motorists of roadway conditions and redirect drivers to less congested routes.
- Implement signal coordination projects to reduce congestion.
- Schedule roadway work at off-peak times.
- Employ Travel Demand Management strategies.

The MPA has three (3) Interstate segments for the purposes of the Truck Travel Time Reliability (TTTR) measure. These are:

- I-10, which has an overall TTTR of 1.61;
- I-110, which has an overall TTTR of 1.61; and
- I-12, which has an overall TTTR of 1.42.

The Interstate system within the MPA meets the CRPC target for TTTR. Actions that the MPO may take to improve and/or maintain the TTTR include:

- Work with law enforcement to remove crashes from travel lanes, reducing congestion.
- Use ITS to advise motorists and truck drivers of roadway conditions and redirect drivers to less congested routes.
- Implement signal coordination projects at Interstate ramps to reduce queueing on ramps and promote efficiency.
- Schedule roadway work at off-peak times.
- Employ Travel Demand Management strategies.
- Implement congestion reduction measures.
- Provide alternative truck routes.

Based on current air quality emissions analysis, the overall emissions within the MPA are being reduced.

- Year 2022 emissions for the region are 12.3 tons/day of NOx and 10.6 tons/day of VOC, which are below their respective 2022 Motor Vehicle Emissions Budget (MVEB) of 14.3 and 13.0 tons/day.
- Year 2027 emissions are 6.7 tons/day of NOX and 6.5 tons/day of VOC, which are below their respective 2027 MVEBs of 11.0 and 11.4 tons/day.

The actions the MPO may take to further improve the emissions within the MPA include:

- Promote programs such as the EPA's Advance Program, Ozone Advance Program, and PM Advance Program.
- Introduce or increase the use of low-carbon and other alternative fuels such as ethanol, biodiesel, natural gas, and hydrogen.
- Reduce high-carbon activities
- Improve system efficiency through the use of ITS, TDM, and other methods or programs that reduce congestion and idling vehicles
- Reduce the amount of travel necessary for transportation users
- Promote ride sharing, public transportation, and transit.
- Promote Connected/Autonomous Vehicle infrastructure to reduce emissions.

2.4 Transit Asset Management Performance

The overall age of transit vehicles operated by CATS, the public transit provider in the MPO area, exceeds the Useful Life Benchmark (ULB) targets established within the MPA. In addition to the rolling stock vehicles, the truck and car equipment vehicles also exceed their ULB targets. To improve its rolling stock and equipment performance targets CATS will need to upgrade its fleet by incorporating newer vehicles and phasing out older vehicles.

CATS also maintains one administration building, one maintenance facility, one service building and one passenger facility as part of its system. Of these four facilities, none of these rates below 3.0 on the Transit Economic Requirements Model (TERM) scale. To maintain this performance, CATS should continue performing regular maintenance in the facilities to upgrade and/or fix any element in need of repair.

2.5 Transit Safety

As part of the FAST Act, the Federal Transit Administration (FTA) added safety requirements for transit providers in order to satisfy the new Public Transportation Agency Safety Plans (PTASP) rule. The PTASP rule requires that qualifying transit agencies develop:

- An Agency Safety Plan (ASP), including performance targets
- A Safety Management System (SMS)
- Documentation related to the ASP and SMS as well as the results of the SMS processes and activities

The FTA states that:

"The PTASP rule requires transit providers to have their certified agency safety plans in place, which includes the first set of required safety performance targets and share these targets with the MPO no later than July 20, 2020. The MPOs then have 180 days from receipt of the agency performance targets to prepare their initial public transportation safety performance targets." The FTA also states:

"Each transit provider is required to review its agency safety plan, annually and update the plan, including the safety performance targets, as necessary.

The MPO is not required to set new transit safety targets each year but can choose to revisit the MPO's safety targets based on the schedule for preparation of its system performance report that is part of the Metropolitan Transportation Plan (MTP). The first MPO MTP update or amendment to be approved on or after July 20, 2021, must include the adopted transit safety targets for the region."

Transit service within the MPA fails to meet several PTASP safety targets. To address this CRPC should work with CATS and may undertake the following:

- Keep the roadways and bridges maintained and as congestion-free as possible.
- Work with state and local officials, as well as other safety stakeholders and CATS, to reduce the frequency and severity of transit-related incidents.
- Coordinate with LADOTD during development of the state's Highway Safety Improvement Program (HSIP) to place emphasis on transit-related safety concerns.
- Ensure that transit projects and safety improvements are coordinated with the state's Strategic Highway Safety Plan (SHSP).
- Identify safety programs and education that may be implemented by transit providers and coordinate with state and local partners to secure funding and implementation.
- Consider how projects placed in the Transportation Improvement Program will transit service and safety.

2.6 Performance Measure Update Cycle

A summary of the mandated transportation performance measurements and their characteristics can be found below:

Performance Measures	Rule Source	Performance Measures	Cycle Length	Details	Last Update Year	Next Update Year
PM1: Safety Performance		Number of Fatalities			2021	2022
		Rate of Fatalities (Per 100 million Vehicle Miles Traveled)		State HSIP targets are assessed annually and must be established by February 27th of each calendar year.		
	FHWA	Number of Serious Injuries	1 Year			
		Rate of Serious Injuries (Per 100 million Vehicle Miles Traveled)				
		Number of Non-Motorized Fatalities and Injuries				
		Percentage of Interstate pavements in Good condition			2018	2022
	FHWA	Percentage of Interstate pavements in Poor condition		Pavement and bridge targets must be established once every 4 years with the option to adjust these targets every 2 years. These must be reported by October 1st in any year in which the PM is updated. MPOs must support state 4- vear target or establish their own.		
PM2: Pavement and Bridge		Percentage of non-Interstate NHS pavements in Good condition	4 Veers			
Performance Measures		Percentage of non-Interstate NHS pavements in Poor condition	4 rears			
		Percentage of NHS bridges by deck area in Good condition				
		Percentage of NHS bridges by deck area in Poor condition				
		Percent of reliable person-miles traveled on the Interstate		System performance and air quality targets must	2018	2022
		Percent of reliable person-miles traveled on the Non-Interstate NHS.		be established once every 4 years with the option to adjust these targets every 2 years		
PM3: System Performance, Freight, and Air Quality Measures	FHWA	Percentage of Interstate system mileage providing for reliable truck travel time (Truck Travel Time Reliability Index).	4 Years	These must be reported by October 1st in any year in which the PM is updated. MPOs must support state 4-year target or establish their own.		
		Total reduction in emissions of applicable pollutants under the Congestion Mitigation for Air Quality (CMAQ) program.		CMAQ targets also require 2-year targets.		
		Percentage of Revenue Vehicles that exceeded/met the useful life benchmark (ULB)	_	MPOs must establish targets specific to the MPO	2021	2022
Regional Transit Asset Management Measures	FTA	Percentage of Equipment that exceeded/met the useful life benchmark (ULB)	_ 1 Year	measures for all public transit providers in the MPO planning area within 180 days of when the transit provider establishes its targets.		
		Percentage of Fatalities with condition rating of 3.0 on the FTA Transit Economic Model (Term) Scale				
		Demand Responsive and Fixed Route Transit Fatalities			2021	2022
Public Transportation Agency Safety Plans (PTASP)		Demand Responsive and Fixed Route Transit Injuries	_	CATS will review the Agency Safety Plan and supporting documents including SOPs, Policies, and Manuals, etc.) annually.		
	FTA	Demand Responsive and Fixed Route Transit Safety Events	l Year			
		Demand Responsive and Fixed Route Transit Reliability (Distance between major mechanical failure)				