TO: **Technical Committee Members**

FROM: **Derrick Harris, MPO Study Director**

RE: **FY 2045 Metropolitan Transportation Plan (Amendment #1)**

The Fiscal Year (FY) 2045 Metropolitan Transportation Plan (MTP) must be consistent with the Transportation Improvement Program (TIP). Therefore, any projects that are proposed in the TIP, must be in the MTP as well. So, an MTP amendment is needed to include the following projects, as they are currently proposed to receive funding in the DRAFT version of the FY 2021-2024 TIP:

- Project #CA0607 - U.S. 270 Widening from AR 227 to Fleetwood Dr.
- Project #061349 - Safety Improvement Project on Hwy. 5 from Hwy. 7 to Deerpark Rd.

In addition, there were several Pavement Preservation Projects which were added. The projects being added are as follows:

- Project #A60004 – U.S. 270 from Garland County line to Stone Quarry Creek
- Project #06X046 – U.S. 70 from U.S 270 to AR 227
- Project #06X245 – U.S. 270 from AR 227 to U.S. 270B
- Project #06X261 – AR 128 from U.S. 70 to AR 5
- Project #06X270 – AR 227 from Oakgrove Rd. to U.S. 270
- Project #06X342 – U.S 70B from U.S. 270 to AR 7

Additionally, the MTP is required by federal statute to document the Performance Measures and their respective targets. The MTP was adopted in September of 2020, PM #2 & #3 and has since been revised by the Arkansas Department of Transportation (ARDOT). Therefore, we are amending the MTP to include the revised PM #2 & #3 targets.

Lastly, the updated project list is in the following pages. If a project is highlighted in orange, it is a new addition; if a project is highlighted in green, it has been revised/updated to align with the new DRAFT of the FY 21-24 TIP.

If you have any further questions or concerns, feel free to reach out to me directly at (501) 525-7577 or dharris@wcapdd.org.

Resolution 2021-03

2045 MTP Amendment (Revision #1)

WHEREAS, federal regulations 23 U.S.C. 134, 23 U.S.C. 150, and 49 U.S.C. 5303, as amended, set forth the national policy that the MPO designated for each urbanized area is to carry out a continuing, cooperative, and comprehensive (3-C) performance-based multimodal transportation planning process, including the development of a multi-modal and intermodal metropolitan transportation plan and a TIP, that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight, fosters economic growth and development, and takes into consideration resiliency needs, while minimizing transportation-related fuel consumption and air pollution; and

WHEREAS, the regulations require that the metropolitan transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decision-making to support the national goals described in 23 U.S.C. 150(b) and the general purposes described in 49 U.S.C. 5301(c); and

WHEREAS, the metropolitan transportation planning process shall include the development of an MTP addressing no less than a 20-year planning horizon as of the effective date; and

WHEREAS, the MPO shall review and update the transportation plan at least every 5 years to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon; and

WHEREAS, the MPO may revise the MTP at any time using the procedures in 23 CFR §450.324 without a requirement to extend the horizon year; and

WHEREAS, an amendment is a major revision that requires public review and comment and a redemonstration of fiscal constraint; and

WHEREAS, an administrative modification is a minor revision that does not require public review and comment or a redemonstration of fiscal constraint; and

WHEREAS, the 2045 MTP is now being amended to include the most up to date performance measures; and the most up to date project lists, which are fiscally constrained, and match the projects being funded in the Fiscal Year 2021-2024 Transportation Improvement Program; and

NOW, THEREFORE, BE IT RESOLVED, that on this day March 18th, 2021, the Policy Board of the Tri-Lakes MPO hereby approves the proposed 2045 MTP Amendment.

Approve:

Ray Owen

Policy Board Chairman

Attest: Derrick Harris

Derrick Harris 03/18/2021

MPO Director

TRI-LAKES METROPOLITAN PLANNING ORGANIZATION (MPO)
Short Term Federal Fiscal Year (FFY) 2021-2025; Mid-Term FFY 2026-2030
Notably, the assumption is that the cost estimate for each project is 80% Federal vs 20% State/Local
Legend: C = Construction; B = Bridge; T = Trails; P = Pavement Preservation

Project	2045 MTP ID	County	Municipality	Facility	From	To	Length (Miles)	Description	Total Year of Expenditure Construction Cost Estimate (100%)	NHPP	STBGP	HSIP	NHFP	CAP	STATE	COUNTY	MUNICIPAL	ACT 416	STIP FY	LEAD AGENCY	PERFORMANCE MEASURES	COMMENTS
C1		Garland	Hot Springs	MLK Expressway/ U.S. 70/270	Higdon Ferry Rd./ AR 88	Central Ave./ AR 7	N/A	Interchange Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects. Concept to be decided at a later date
C2		Garland	Hot Springs	MLK Expressway/ U.S. 70/270	Airport Rd/ U.S. 70/70B	N/A	N/A	Interchange Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects. Concept to be decided at a later date
C3	061203	Garland	Hot Springs	Carpenter Dam/ AR 128	MLK Expressway/ U.S. 70/ U.S. 270	Malvern Ave./ U.S. 270B	0.53	Interchange Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects. Concept to be decided at a later date
C4		Garland	Hot Springs	Carpenter Dam/ AR 128	Corner Stone Blvd./ Buena Vista Rd./ Mehta Ct./ Higdon Ferry Rd.	N/A	N/A	Interchange Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects. Concept to be decided at a later date
C5		Garland	Hot Springs	MLK Expressway/ U.S. 70/270	Albert Pike Rd./ U.S. 270	N/A	N/A	Interchange Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects. Concept to be decided at a later date
C6		Garland	N/A	AR 7/Scenic Byway	AR 5	Desoto Blvd.	7.73	Widening to 4 Lanes	$ 34,949,982	$ -	$ -	$ -	$ -	$ -	$34,949,982	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	NHS
C7		Garland	N/A	Central Ave/ AR 7	Albright Rd./ AR 290	Garland/Hot Spring County Line	2.28	Widening to 4 Lanes	$ 11,400,000	$ -	$ -	$ -	$ -	$11,400,000	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects
C8	CA0612	Garland	N/A	Albert Pike Rd./ U.S. 270	Ouachita Ave.	Fleetwood Dr.	1.77	Widening to 4 Lanes	$ 11,000,000	$ -	$ -	$ -	$ -	$11,000,000	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects
C9	061627	Garland	Hot Springs	Park Ave./ AR 7	Bailey Pl/ Reid St.	Fox Pass Cutoff	1.69	Add curbs, bike lanes, and sidewalks	$ 8,450,000	$ 8,450,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	CHS okay with 2 lanes, except for a turning lane at Gorge Rd. NHS
C10		Garland	N/A	Airport Rd./ U.S. 70	Adcock Rd./ Majestic Lodge Rd.	N/A	N/A	Intersection Improvements	$ 1,428,000	$ -	$ 1,428,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	
C11		Garland	Hot Springs	Golf Links Rd.	Central Ave./ AR 7	Hot Springs Creek Bridge	0.76	Widen to 3 lanes w/ bike lanes and sidewalks	$ 3,800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$3,800,000	$ -	2021-2030	CHS	PM 1, 2, 3	
C12		Garland	Hot Springs	Yorkshire Dr.	Yorkshire Dr.	Grandview Dr.	0.1	Connect Yorkshire Dr. to Grandview Dr.	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ -	2021-2030	CHS	PM 1, 2, 3	
C13		Garland	Hot Springs	East Belding St.	East Belding St.	Malvern Ave./ U.S. 270B	0.14	Connect Belding St. to Malver Ave. and include bike lanes/sidewalks	$ 252,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 252,000	$ -	2021-2030	CHS	PM 1, 2, 3	
C14		Garland	N/A	Albert Pike Rd./ U.S. 270	Garland/ Montgomery County Line	Ouachita River	15.3	Capital Improvements	$ 14,224,138	$ -	$ -	$ -	$ -	$14,224,138	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Part of potential CAP-2 projects
C15		Garland	N/A	West Glazypeau Rd.	AR 7 North (Scenic Byway)	Moutain Pine Rd./ AR 227	7.86	Widen and improve alignment	$ 8,318,005	$ -	$ -	$ -	$ -	$ -	$ 8,318,005	$ -	$ -	$ -	2021-2030	CHS	PM 1, 2, 3	
C16		Garland	Hot Springs	Twin Points Rd	Higdon Ferry Rd.	Forest Lakes Blvd.	0.49	Widen to 3 lanes w/ bike lanes and sidewalks	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$1,000,000	$ -	2021-2030	CHS	PM 1, 2, 3	
C17	CA0607	Garland	N/A	U.S. 270	Fleetwood Dr.	AR 227	1.4	Major Widening	$ 12,800,000	$ -	$ -	$ -	$ -	$12,800,000	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Amendment #1
C18	061439	Garland	N/A	AR 5	AR 7 North	Deerpark Rd.	1.64	Safety Improvements	$ 4,300,000	$ -	$ -	$ 3,870,000	$ -	$ -	$ 430,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Amendment #1
P1	A60006	Garland	Hot Springs	Malvern Ave/ U.S. 270B	Hollywood Ave.	MLK Expressway/ U.S. 70/270	3.25	Pavement Preservation	$ 2,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$2,000,000	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P2		Garland	Hot Springs	Malvern Ave/ U.S. 270	MLK Expressway/ U.S. 70/ U.S. 270	Garland/Hot Spring County Line	4.52	Pavement Preservation	$ 1,808,000	$ 1,808,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P2A	A60004	Hot Spring		U.S. 270	Garland County Line	Stone Quarry Creek	4.69	Pavement Preservation	$ 3,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$3,500,000	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P3	06X215	Garland	Hot Springs	Central Ave/ AR 7	MLK Expressway/ U.S. 70/ U.S. 270	Whittington Ave.	3.8	Pavement Preservation	$ 1,520,000	$ 1,520,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P4	06X218	Garland	Hot Springs	U.S. 70B/270B	AR 7	Valley St.	0.29	Pavement Preservation	$ 100,000	$ 80,000	$ -	$ -	$ -	$ -	$ 20,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P5	06X216	Garland	Hot Springs	Malvern Ave/ U.S. 270B	East Grand Ave./ U.S. 70B	Hollywood Ave.	1.4	Pavement Preservation	$ 560,000	$ 560,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P6	06X220	Garland	Hot Springs	MLK Expressway/ U.S. 70/270	Central Ave./ AR 7	Malvern Ave./ U.S. 270B	4.5	Pavement Preservation	$ 2,600,000	$ 2,080,000	$ -	$ -	$ -	$ -	$ 520,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P7		Garland	N/A	Albert Pike Rd./ U.S. 270	Sunshine Rd./ AR 227	Ouachita River	5.42	Pavement Preservation	$ 2,168,000	$ 2,168,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P8	06X046	Garland		U.S. 70	U.S. 270	AR 227	6.29	Pavement Preservation	$ 4,500,000	$ -	$ 3,600,000	$ -	$ -	$ -	$ 900,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only

Project	2045 MTP ID	County	Municipality	Facility	From	To	Length (Miles)	Description	Total Year of Expenditure Construction Cost Estimate (100%)	NHPP	STBGP	HSIP	NHFP	CAP	STATE	COUNTY	MUNICIPAL	ACT 416	STIP FY	LEAD AGENCY	PERFORMANCE MEASURES	COMMENTS
P9	06X245	Garland		U.S. 270	AR 227	U.S. 270B	1.1	Pavement Preservation	$ 800,000	$ 640,000	$ -	$ -	$ -	$ -	$ 160,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P10	06X261	Garland		AR 128	U.S. 70	AR 5	8.48	Pavement Preservation	$ 2,100,000	$ -	$ 1,680,000	$ -	$ -	$ -	$ 420,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P11	06X270	Garland & Saline		AR 227	Oakgrove Rd.	U.S. 270	4.53	Pavement Preservation	$ 600,000	$ -	$ 480,000	$ -	$ -	$ -	$ 120,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
P12	06X342	Garland		U.S. 70B	U.S. 270	AR 7	4.18	Pavement Preservation	$ 2,800,000	$ 2,240,000	$ -	$ -	$ -	$ -	$ 560,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	Pavement Preservation projects shown for informational purposes only
B1	061608	Garland	N/A	Strawberry Rd./ AR 192	N/A	N/A	N/A	Bridge over Little Glazypeau Creek	$ 2,400,000	$ 1,920,000	$ -	$ -	$ -	$ -	$ 480,000	$ -	$ -	$ -	2021-2030	ARDOT	PM 1, 2, 3	
B2	06X151	Garland	Hot Springs	Honeycutt St.	N/A	N/A	N/A	Bridge over Gulpha Creek	$ 4,400,000	$ 3,520,000		$ -	$ -	$ -	$ 880,000	$ -	$ -	$ -	2021-2030	ARDOT/CHS	PM 1, 2, 3	
B3		Garland	Hot Springs	Richard St.	N/A	N/A	N/A	Bridge over Stokes Creek	$ 918,000	$ -	$ 918,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT/CHS	PM 1, 2, 3	
T1		Garland	Hot Springs	Northwoods Trail - Phase 2	TBD	TBD	30	Northwoods Trail Connections	$ 3,000,000	$ -	$ 3,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	CHS	PM 1, 2, 3	Phase 1 is Pullman Ave. Trail - Let Date of 02/2020
T2		Garland	Hot Springs	Hot Springs Creek Greeway Trail	Television Hill Rd.	Hot Springs Creek (north of MLK expressway bridge)	0.18	Wetlands Trailhead	$ 500,000	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	CHS	PM 1, 2, 3	
T3		Garland	Hot Springs	Southwest Trail	Hot Springs National Park (Reserve St.)	Garland/Saline County Line	16	Southwest Trail	$ 10,000,000	$ -	$10,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT/CHS	PM 1, 2, 3	
T4		Garland	Hot Springs	Forest Hills Trivista Trail	Kay St./ Ida St.	Highlands St./ Bayard St.	0.8	Missouri Pacific Trivista Neighborhood Connection Trail	$ 1,207,196	$ -	$ 1,207,196	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	CHS	PM 1, 2, 3	
T5		Garland	Hot Springs	Stokes Creek Greenway Trail - 1A	Kimery Ln.	Richard St.	0.4	Trail	$ 500,000	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	CHS	PM 1, 2, 3	
T6		Garland	Hot Springs	Stokes Creek Greenway Trail - 1B	McLeod St.	Kimery Ln.	0.77	Trail	$ 1,000,000	$ -	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	CHS	PM 1, 2, 3	
T7		Garland	Hot Springs	Airport Connector Trail	Kimery Ln.	Airport Terminal on Airport Rd.	1.71	Trail	$ 500,000	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT/CHS	PM 1, 2, 3	
TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Various Statewide Generl Projects	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	2021-2030	ARDOT/LOCAL PUBLIC AGENCY (LPA)	PM 1, 2, 3	Various Statewide Generic Projects

Concur: _____

Date: SEP 28 2020

Mid-Performance Report

OVERVIEW
PERFORMANCE MEASURES

In July 2012, Congress passed the Moving Ahead for Progress in the 21st Century Act (MAP-21) and created a performance-based surface transportation program. The Fixing America's Surface Transportation Act (FAST Act), signed into law in December 2015, continued and refined those efforts. MAP-21 and FAST Act integrated performance into many Federal surface transportation programs.

In January 2017, The Federal Highway Administration (FHWA) published in the Federal Register (82 FR 5970) two final rules, Performance Measure Rules No. 2 and No. 3 (PM2 & PM3). PM2 established performance measures to assess the condition of bridges and pavements on the National Highway System (NHS). PM3 set performance measures for State Departments of Transportation (DOTs) to use to report on the performance of the Interstate and non-Interstate NHS to carry out the National Highway Performance Program (NHPP); freight movement on the Interstate system to carry out the National Highway Freight Program (NHFP); and traffic congestion and on-road mobile source emissions to carry out the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. PM2 and PM3 became effective on May 20, 2017.

PERFORMANCE MANAGEMENT FORM (PMF)

The federal rules require recurring four-year performance periods (Figure 1) for which two and four-year targets need to be established. The PMF is how these targets and supporting documentation are reported to meet the reporting requirements of 23 U.S.C. 150 and 23 CFR part 490. This Mid-Performance Report will provide the bases of filling out the PMF.

The first performance period takes place from January 1, 2018 to December 31, 2022. There are a total of three progress reports due for each performance period:

- Baseline Performance Report (submitted October 1, 2018)
- Mid-Performance Period Progress Report (October 1, 2020)
- Full Performance Period Progress Report (October 1, 2022)

FHWA is charged with determining the headway on each Progress Report. Significant progress is defined as achieving a condition that is equal to or better than the target, or better than the baseline condition. If significant progress is not attained, ARDOT must document how it plans to achieve it for the next report or explain the need to adjust the target.

In the 2018 Baseline Performance Report, 2-year and 4-year targets were set for all PM2 and PM3 measures. Now, in 2020, the current conditions are compared with the 2-year targets set in 2018. Four-year targets may be adjusted to address any gap between the predicted and the current state.

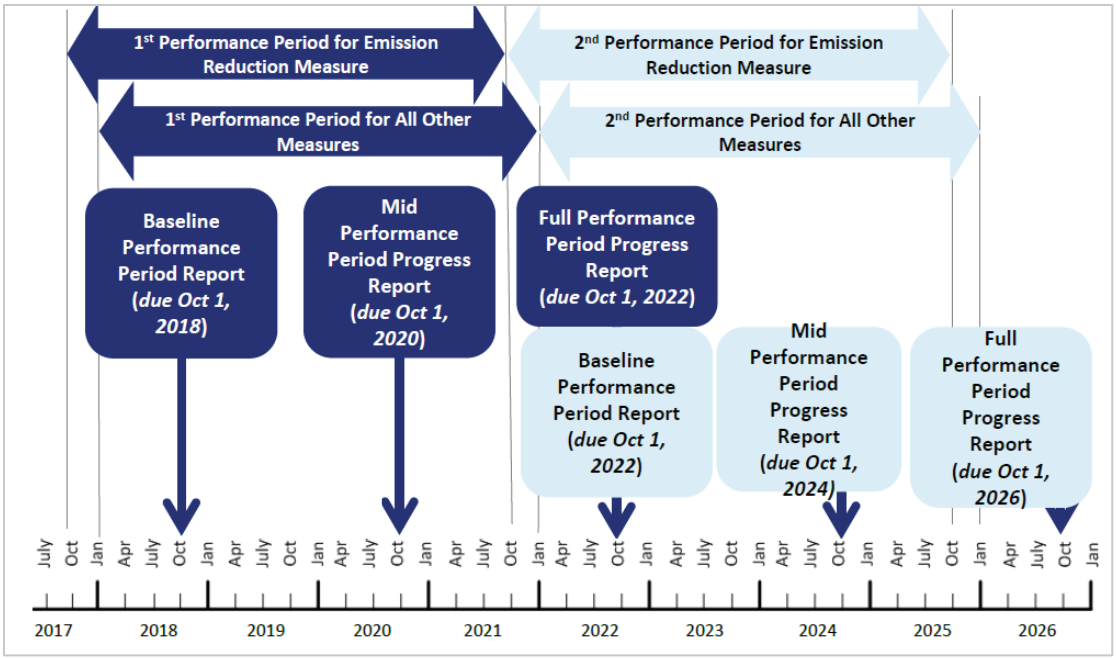

Figure 1. Performance Period and State DOT Biennial Performance Reporting (FHWA)

TARGET SETTING REQUIREMENTS

State DOTs:

- Must establish statewide 2-year and 4-year targets by May 20, 2018, and report targets by October 1, 2018, in the Baseline Performance Period Report.
- May adjust 4-year targets at the Mid-Performance Period Progress Report (October 1, 2020).
- State DOTs shall coordinate with relevant Metropolitan Planning Organizations (MPOs) on the selection of targets to ensure consistency, to the maximum extent practicable.

Metropolitan Planning Organizations (MPOs):

- Shall support the relevant State DOT 4-year target or establish their own targets within 180 days after the State DOT targets are set.
- Shall report their established targets to their respective State DOT in a manner that is documented and mutually agreed upon by both parties.
- Shall report baseline condition/performance and progress toward the achievement of their targets in the system performance report in the metropolitan transportation plan.

Following is a summary of the measures with adjusted 4-year targets shown in red text. More information about the target setting and adjustments are provided later in this document.

SUMMARY

PAVEMENTS

2018 Baseline Performance Report (IRI Only)			
	Baseline (2018) *	2-year (2020)	4-year (2022)
Percent of Interstate pavements in Good condition	77%	N/A	79%
Percent of Interstate pavements in Poor condition	4%	N/A	5%
Percent of non-Interstate NHS pavements in Good condition	52%	48%	44%
Percent of non-Interstate NHS pavements in Poor condition	8%	10%	12%
2020 Mid-Performance Report (IRI Only)			
		Current (2020) ^	4-year (2022) #
Percent of Interstate pavements in Good condition		78%	79%
Percent of Interstate pavements in Poor condition		4%	5%
Percent of non-Interstate NHS pavements in Good condition		56%	59%
Percent of non-Interstate NHS pavements in Poor condition		8%	7%

* Condition rating based on ARDOT's 2017 HPMS pavement dataset – IRI Only
^ Condition rating based on ARDOT's 2019 HPMS pavement dataset – IRI Only
# Condition rating based on ARDOT's 2021 Projected pavement dataset – IRI Only

2018 Baseline Performance Report (Full Distress)			
	Baseline (2018) *	2-year (2020)	4-year (2022)
Percent of Interstate pavements in Good condition	70%	N/A	72%
Percent of Interstate pavements in Poor condition	2%	N/A	5%
Percent of non-Interstate NHS pavements in Good condition	28%	36%	40%
Percent of non-Interstate NHS pavements in Poor condition	4%	4%	4%
2020 Mid-Performance Report (Full Distress)			
		Current^ (2020)	4-year# (2022)
Percent of Interstate pavements in Good condition		71%	72%
Percent of Interstate pavements in Poor condition		2%	5%
Percent of non-Interstate NHS pavements in Good condition		36%	40%
Percent of non-Interstate NHS pavements in Poor condition		4%	4%

* Condition rating based on ARDOT's 2017 HPMS pavement dataset – Full Distress
^ Condition rating based on ARDOT's 2019 HPMS pavement dataset – Full Distress
# Condition rating based on ARDOT's 2021 Projected pavement dataset – Full Distress

BRIDGES

2018 Baseline Performance Report			
	Baseline (2018)	2-year (2020)	4-year (2022)
Percent of NHS bridges by deck area classified as Good condition	50.3%	50.0%	50.0%
Percent of NHS bridges by deck area classified as Poor condition	3.9%	4.0%	6.0%
2020 Mid-Performance Report			
		Current (2020)	4-year (2022)
Percent of NHS bridges by deck area classified as Good condition		44.5%	42.0%
Percent of NHS bridges by deck area classified as Poor condition		3.6%	6.0%

TRAVEL TIME RELIABILITY

2018 Baseline Performance Report			
	Baseline (2018)	2-year (2020)	4-year (2022)
Percent of Person-Miles Traveled on the Interstate that are Reliable	95%	91%	89%
Percent of Person-Miles Traveled on the non-Interstate NHS that are Reliable	96%	N/A	90%
2020 Mid-Performance Report			
		Current (2020)	4-year (2022)
Percent of Person-Miles Traveled on the Interstate that are Reliable		97%	93%
Percent of Person-Miles Traveled on the non-Interstate NHS that are Reliable		96%	92%

FREIGHT RELIABILITY

2018 Baseline Performance Report			
	Baseline (2018)	2-year (2020)	4-year (2022)
Truck Travel Time Reliability on the Interstate System	1.21	1.45	1.52
2020 Mid-Performance Report			
		Current (2020)	4-year (2022)
Truck Travel Time Reliability on the Interstate System		1.21	1.40

CONGESTION MITIGATION AND AIR QUALITY (CMAQ)

2018 Baseline Performance Report			
	Baseline (2018)	2-year (2020)	4-year (2022)
Annual Hours of Peak Hour Excessive Delay per Capita	8.42	N/A	18.81
Percent Non-Single Occupancy Vehicle Travel	17.0%	16.5%	16.5%
2020 Mid-Performance Report			
		Current (2020)	4-year (2022)
Annual Hours of Peak Hour Excessive Delay per Capita		6.70	8.00
Percent Non-Single Occupancy Vehicle Travel		15.9%	14.5%

Backup Information

PAVEMENTS

BRIDGE

TRAVEL TIME RELIABILITY

FREIGHT RELIABILITY

CONGESTION MITIGATION AND AIR QUALITY(CMAQ)

Mid-Performance Report

PAVEMENTS
PERFORMANCE MEASURES

In accordance with 23 CFR 490, FHWA established performance measures for State DOTs to use in managing pavement performance on the NHS. The following is a list of the required performance measures for pavements.

Performance Measures
Percent of Interstate pavements in Good condition
Percent of Interstate pavements in Poor condition
Percent of non-Interstate NHS pavements in Good condition
Percent of non-Interstate NHS pavements in Poor condition

CONDITION BASED PERFORMANCE MEASURES

Data Collection Requirements:

- Starting January 1, 2018, pavement data collected on the Interstate must include International Roughness Index (IRI), percent cracking, rutting, and faulting. This data must be reported in the Highway Performance Monitoring System (HPMS) by April 15, 2019. This data will be gathered and re-submitted every year on a full extent basis.
- The same requirements become effective for non-Interstate NHS pavement data beginning January 1, 2020 with a HPMS report date of June 15, 2021. This data will be gathered and re-submitted at least every two years on a full extent basis.

Pavement Condition Determination:

Asphalt Pavement	Jointed Concrete Pavement (JCP)	Continuously Reinforced Concrete Pavement (CRCP)
IRI	IRI	IRI
Rutting	Faulting	--
Cracking %	Cracking %	Cracking %

- Good: All measures are in good condition
- Poor: Two or more measures are in poor condition
- Fair: Everything else

Pavement Condition Thresholds:

	Good	Fair	Poor
IRI (inches/mile)	<95	95-170	>170
Rutting (inches)	<0.20	0.20-0.40	>0.40
Faulting (inches)	<0.10	0.10-0.15	>0.15
Cracking (%)	<5	5-20 (asphalt) 5-15 (JCP) 5-10 (CRCP)	>20 (asphalt) >15 (JCP) >10 (CRCP)

TARGET SETTING REQUIREMENTS

State DOTs:

- Must establish targets, regardless of ownership, for the full extent of the Interstate and non-Interstate NHS.
- Must establish statewide 2-year and 4-year targets for the non-Interstate NHS and 4-year targets for the Interstates by May 20, 2018 and report targets by October 1, 2018 in the Baseline Performance Period Report.
- May adjust 4-year targets at the Mid-Performance Period Progress Report (October 1, 2020).
- State DOTs shall coordinate with relevant MPOs on the selection of targets to ensure consistency, to the maximum extent practicable.

Other Information:

- State DOT targets should be determined from asset management analyses and procedures. The targets reflect investment strategies that aim to achieve a state of good repair over the life cycle of assets at minimum practicable cost.
- The minimum acceptable condition for interstate pavements is no more than 5% in poor condition. FHWA will make this determination using the data in HPMS by June 15 of each year. Any State DOT that does not meet the minimum condition will be required to obligate a portion of its NHPP and Surface Transportation Program (STP) funds to address interstate pavement conditions. The first assessment will occur in June 2019.

MID-PERFORMANCE PERIOD

In the Department's 2018 Baseline Performance Period Report the condition ratings and targets were based on IRI only. With this Mid-Performance Period Update, the pavement condition ratings and targets are transitioning from IRI Only to Full Distress, as shown in Pavement Condition Determination Table above. The Current Condition, 2-year and 4-Year Pavement Performance Targets for the Interstate and Non-Interstate NHS pavements were developed using Highway Performance Monitoring System (HPMS) datasets for 2017 through 2019. Factors that were taken into consideration as part of this estimation included the calculated Current Condition, projects that are anticipated to be completed by 2021, estimated deterioration rates, and the anticipated level of available funding.

4-YEAR TARGET ADJUSTMENTS

A review of the current performance and targets revealed that the non-Interstate NHS pavements are performing better than anticipated. This is primarily due to an increased emphasis placed on pavement preservation and overall actual investments that exceeded the investment strategy targets due to the following:

- Additional funding provided by Local Public Agencies through Partnering Agreements
- State Surplus funds exceeded estimates
- Multiple Federal Fiscal Year Obligations applied to one or more projects

The 4-year non-Interstate NHS targets are being adjusting to account for the increase in preservation projects on the non-Interstate portion of the NHS and the impact of additional revenue from State of Arkansas Act 416 adopted in March 2019. The proposed targets are not intended to be "aspirational", but rather reflect a "realistic" approach to minimizing deterioration of the existing pavements on the Interstate and non-Interstate NHS in an environment where available resources are improving. The targets represent what is forecasted to be attainable if the strategies and funding estimates in the Transportation Asset Management Plan (TAMP) are implemented.

Performance Targets		
	2-year *	4-year ^
Percent of Interstate pavements in Good condition	N/A	72%
Percent of Interstate pavements in Poor condition	N/A	5%
Percent of non-Interstate NHS pavements in Good condition	36%	40%
Percent of non-Interstate NHS pavements in Poor condition	4%	4%

* Condition rating based on ARDOT's 2019 HPMS pavement dataset – full distress.
^ Condition rating based on ARDOT's Projected 2021 HPMS pavement dataset – full distress.

BRIDGE
PERFORMANCE MEASURES

Per 23 CFR 490, FHWA established performance measures for State DOTs to use in managing bridge performance on the NHS. The following is a list of the required performance measures for bridges.

Performance Measures
Percent of NHS bridges by deck area classified as Good condition
Percent of NHS bridges by deck area classified as Poor condition

CONDITION BASED PERFORMANCE MEASURES

- Measures are based on-deck area.
- The classification is based on the National Bridge Inventory (NBI) condition ratings for deck, superstructure, substructure, and bridge length culverts.
- Condition is determined by the lowest rating of deck, superstructure, substructure, or culvert.
    - If the lowest rating is greater than or equal to 7, the structure is classified as good.
    - If it is less than or equal to 4, the classification is poor.
    - Structures rated below 7 but above 4 will be classified as fair.
- Deck area is computed using structure length and deck width or approach roadway width (for bridge length culverts).

Additional Information:

- State DOT targets should be determined from asset management analyses and procedures. The targets reflect investment strategies that aim to achieve a state of good repair over the life cycle of assets at minimum practicable cost.
- If for three consecutive years more than 10% of a State DOT's NHS bridges total deck area is classified as Poor, the State DOT must obligate and set aside NHPP funds to eligible bridge projects on the NHS.

MID-PERFORMANCE PERIOD

A review of the Mid-Performance Period indicates that the 4-year target for poor bridges is still reasonable with the mid-performance at 3.6%, but that the 4-year target for good bridges is 5.5% lower than the 2-year mid-performance. A review of the individual bridges explained the unexpected drop from good to fair. A few large bridges moved from good to fair in the two year period. One bridge in particular, 07100 – Lake Village Bridge over the Mississippi River, accounted for 3.5% of the change by itself. Mississippi inspects bridge 07100, and this bridge was not included in the model since it is a

unique bridge and relatively new. It turns out there are design and construction issues with bridge 07100 that the model would not have accounted for even if it was in the model.

Another but less affecting issue is the makeup of the NHS itself. There were 248 bridge changes (removed and added) from 2018 to 2020. Replaced bridges accounted for 28% of the changes to the NHS, but the remainder is due to updates and corrections. Before 2019, there was no prescribed procedure to maintain the current NHS in the bridge database, so errors existed. GIS tools are now available to keep the bridge database in sync with the current NHS.

4-YEAR TARGET ADJUSTMENT

While the 4-year target of 6.0% poor is still reasonable, the number of large bridges moving to fair condition earlier than projected necessitates a change to the 4-year good target of 50.0%. While there may be some additional large bridges move from good to fair in the next two years, it is unlikely to drop as much as the previous two years. A target of 42.0% gives a reasonable adjustment with some room for downward movement if the trend continues. The following chart reflects the original targets with the proposed change.

NHS Performance Measures (by Deck Area)	2018 Baseline	2-year Target	Current Condition	Original 4-year Target	Revised 4-year Target
NHS bridges in Good condition	50.3%	50.0%	44.5%	50.0%	42.0%
NHS bridges in Poor condition	3.9%	4.0%	3.6%	6.0%	6.0%

RISK AND MITIGATION

The significant drop in good to fair bridges demonstrates the risk in projecting future conditions based on past performance. Changes in design, construction and maintenance practices, material quality, traffic, and environmental factors all can have a significant effect on the accuracy of the predictive model. The following steps help to mitigate future risks in model performance.

- Risk – A few large bridges changing states between Good and Fair or Fair and Poor can significantly affect the accuracy of the model – as explained previously.
    - Mitigation – Revising the bridge model better to fit the conditions of the last two years.
- Risk – There is a "lag" between the dTIMS (predictive modeling software) investment projections and the delivery of capital investments. In the 2018 model, the existing Statewide Transportation Improvement Program (STIP) was not modeled in the initial dTIMS run.
    - Mitigation – Include the most recent STIP in the dTIMS model.

While it is not possible to eliminate all risk in a predictive model, it is possible to mitigate the risks and increase the reliability of the predictive model. Planned improvements in the model include updates to the deterioration curves and integration of truck traffic and environmental factors. The use of artificial intelligence is also being investigated to help achieve better results. Validation checks along the way ensure that any changes made give improved outcomes. While these actions do not affect the current TAMP, it allows a higher degree of accuracy in the next TAMP.

Mid-Performance Report

TRAVEL TIME RELIABILITY PERFORMANCE MEASURES

In accordance with 23 CFR 490, FHWA established performance measures for State DOTs to use in assessing system performance on the Interstate and non-Interstate NHS. The following is a list of the required performance measures for travel time reliability.

Performance Measures
Percent of Person-Miles Traveled on the Interstate that is Reliable
Percent of Person-Miles Traveled on the non-Interstate NHS that is Reliable

CONDITION BASED PERFORMANCE MEASURES

- Measures are based on the Level of Travel Time Reliability (LOTTR) which is defined as the ratio of the longer travel time (80th percentile) to a "normal" travel time (50th percentile) using data from FHWA's National Performance Management Research Data Set (NPMRDS) or equivalent.
- A LOTTR will be calculated for each of the following periods for each segment of highway, known as a Traffic Message Channel (TMC):
    - 6:00 AM-10:00 AM Weekday
    - 10:00 AM-4:00 PM Weekday
    - 4:00 PM-8:00 PM Weekday
    - 6:00 AM-8:00 PM Weekends
- If any one of the four time periods has a LOTTR above 1.5, the TMC will be considered unreliable.
- All TMCs will have their length multiplied by the average daily traffic and a vehicle occupancy factor of 1.7 (released by FHWA on 4/27/2018) to determine the person-miles traveled on that TMC. Then the reliable TMCs will be summed and divided by the total person-miles traveled.

Additional information:

- State DOTs must establish targets for the Interstate and non-Interstate NHS.
- FHWA began introducing the NPMRDS provided by HERE in August 2013. The data was mainly considered as raw probe data.
- In February 2017, FHWA switched the NPMRDS vendor from HERE to INRIX. Due to different data processing approaches by the vendors, there are inconsistencies in the NPMRDS.

- The data used in the 2018 target setting included three years (2014-2016) of data in HERE standard and one year (2017) of data in INRIX standard. Since that time, INRIX has backfilled 2016 data. Therefore, in the 2020 target setting, only the 2014-2015 data is in the HERE standard. 2016-2019 data is provided using the INRIX standard.
- Population growth and increasing travel will affect travel time reliability, particularly in fast-growing urban areas.
- An extensive construction program on the Interstate system could result in multiple major work zones. This scenario would have an effect on the reliability of the Interstates and non-Interstate NHS routes.
- If FHWA determines that a State DOT has not made significant progress toward achieving the target, the State DOT shall document the actions it will take to achieve the NHS travel time targets. There is no financial penalty for not meeting the proposed targets at this time.

MID-PERFORMANCE PERIOD

In the 2018 Baseline Report, the 2-year target for Percent of Person-Miles Traveled Reliable on Interstate was set to 91%. However, it was set with only one year (2017) of consistent data and four years (2014-2017) of total data. A consistent trend was not established at that time.

The latest data (2019) for Percent of Person-Miles Traveled on Interstate Reliable is 97%, which significantly outperforms the 2-year target of 91%. Considering the relatively flat trend line for this measure from recent years, the original 4-year target of 89% is very conservative.

4-YEAR TARGET ADJUSTMENT

The 4-year target for Percent of Person-Miles Traveled Reliable on Interstate can be adjusted to 93%. This new target is set to be lower than the current trend line. It takes into consideration the estimation of the increase in traffic over the next two years, along with construction impacts that can affect the reliability of the system. A few large construction projects in Central Arkansas are going to start in the near future that will potentially change traffic patterns. Figure 2 shows the data and targets for the Percent of Person-Miles Traveled Reliable on Interstate.

Similarly, the 4-year targets for Non-Interstate NHS will be changed from 90% to 92%. Figure 3 shows the data and targets for the Percent of Person-Miles Traveled Reliable on Non-Interstate NHS.

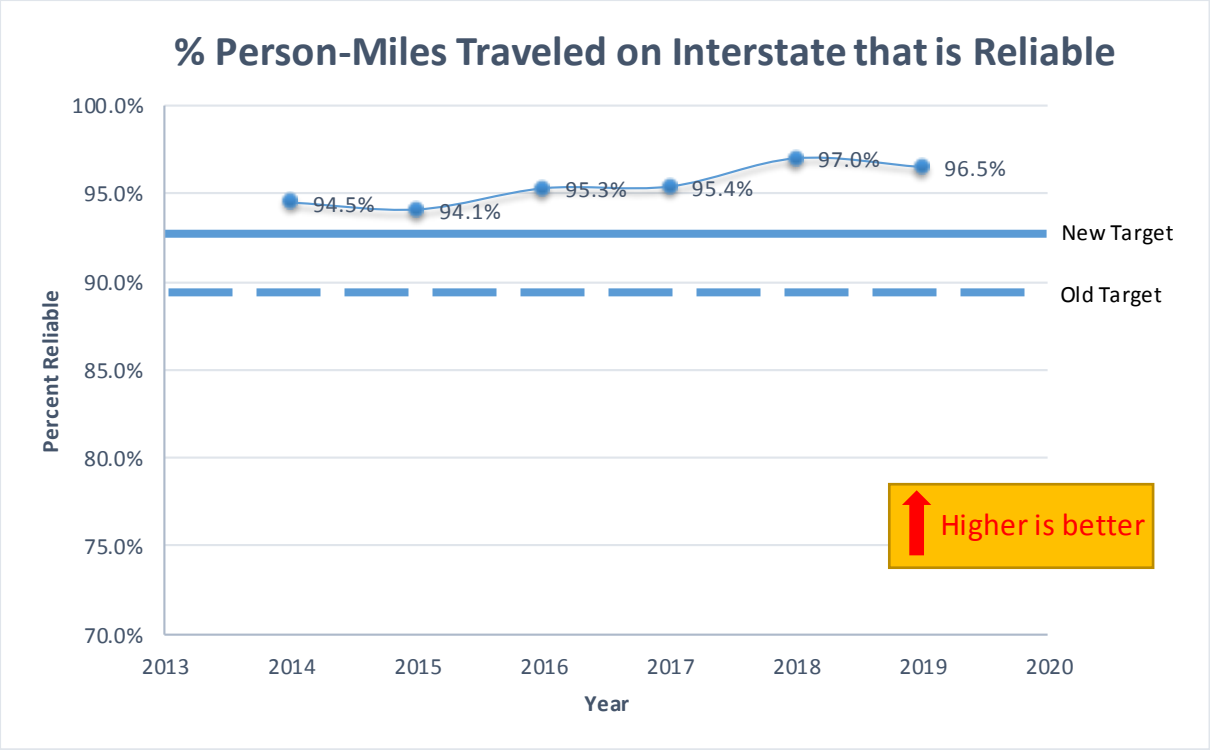

Figure 2. Percent of Person-Miles Traveled on Interstate that is Reliable

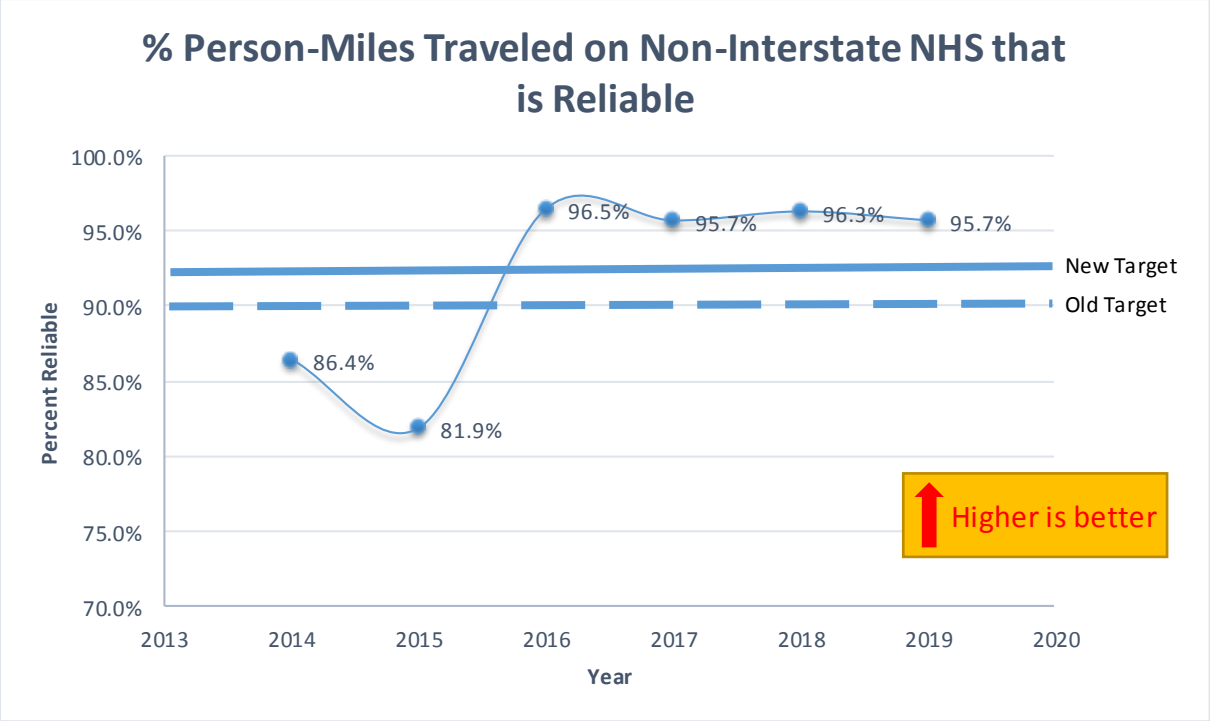

Figure 3. Percent of Person-Miles Traveled on Non-Interstate NHS that is Reliable

Mid-Performance Report

FREIGHT RELIABILITY PERFORMANCE MEASURE

In accordance with 23 CFR 490, FHWA established performance measures for State DOTs to use in assessing freight movement on the Interstate System. The following is the required performance measure for freight reliability.

Performance Measure
Truck Travel Time Reliability on the Interstate System

CONDITION BASED PERFORMANCE MEASURES

- The measure is based on the Truck Travel Time Reliability (TTTR) Index.
- The TTTR is defined as the 95th percentile truck travel time divided by the 50th percentile truck travel time using data from FHWA's NPMRDS or equivalent.
- The TTTR will be calculated for each of the following five time periods for each segment of Interstate known as a Traffic Message Channel (TMC):
    - 6:00 AM-10:00 AM Weekday
    - 10:00 AM-4:00 PM Weekday
    - 4:00 PM-8:00 PM Weekday
    - 6:00 AM-8:00 PM Weekends
    - 8:00 PM-6:00 AM All Days
- The maximum TTTR for each TMC will be multiplied by the length of the TMC. Then the sum of all length-weighted segments divided by the total length of Interstate will generate the TTTR Index.

Additional Information:

- Must establish targets for all Interstates.
- FHWA began introducing the NPMRDS provided by HERE in August 2013. The data was mainly considered as raw probe data.
- In February 2017, FHWA switched the NPMRDS vendor from HERE to INRIX. The change in vendor resulted in inconsistencies due to the different approaches in the data processing.
- The data used in the 2018 target setting include three years (2014-2016) of data in HERE standard and one year (2017) of data in INRIX standard. Since theat time, INRIX has backfilled 2016 data. Therefore, in the 2020 target setting, only the 2014-2015 data is in the HERE standard. 2016-2019 data is provided using the INRIX standard.

- Population growth and increasing travel will affect travel time reliability, particularly in fast-growing urban areas.
- Urban congestion often affects freight reliability. For example, 20 of the highest 40 TTTR segments in Arkansas are located on urban Interstates, where very little truck traffic exists.
- If FHWA determines that a state DOT has not made significant progress toward achieving the target, the State DOT shall include as part of the next performance target report identification of significant freight trends, needs, and issues within the State as well as a description of the freight policies and strategies and an inventory of truck freight bottlenecks. There is no financial penalty for not meeting the proposed targets at this time.

MID-PERFORMANCE PERIOD

In the 2018 Baseline Report, a 2-year target for TTTR on the Interstate System was set to 1.45. However, it was set with only one year (2017) of consistent data and four years (2014-2017) of total data. A consistent trend was not established at that time.

4-YEAR TARGET ADJUSTMENT

The latest data (2019) for TTTR on the Interstate System is 1.21, which significantly outperforms the 2-year target of 1.45. Considering the relatively flat trend line for this measure in recent years, the original 4-year target of 1.52 is very conservative. Therefore, the 4-year target for TTTR on Interstates can be adjusted to 1.40. Figure 4 shows the data and targets for the TTTR on Interstates.

The proposed target is slightly higher than the trend line. This considers the estimation of the increase in traffic over the next two years along with construction impacts that can affect the reliability of the system. A few large construction projects in Central Arkansas are going to start in the near future that will potentially change traffic patterns .

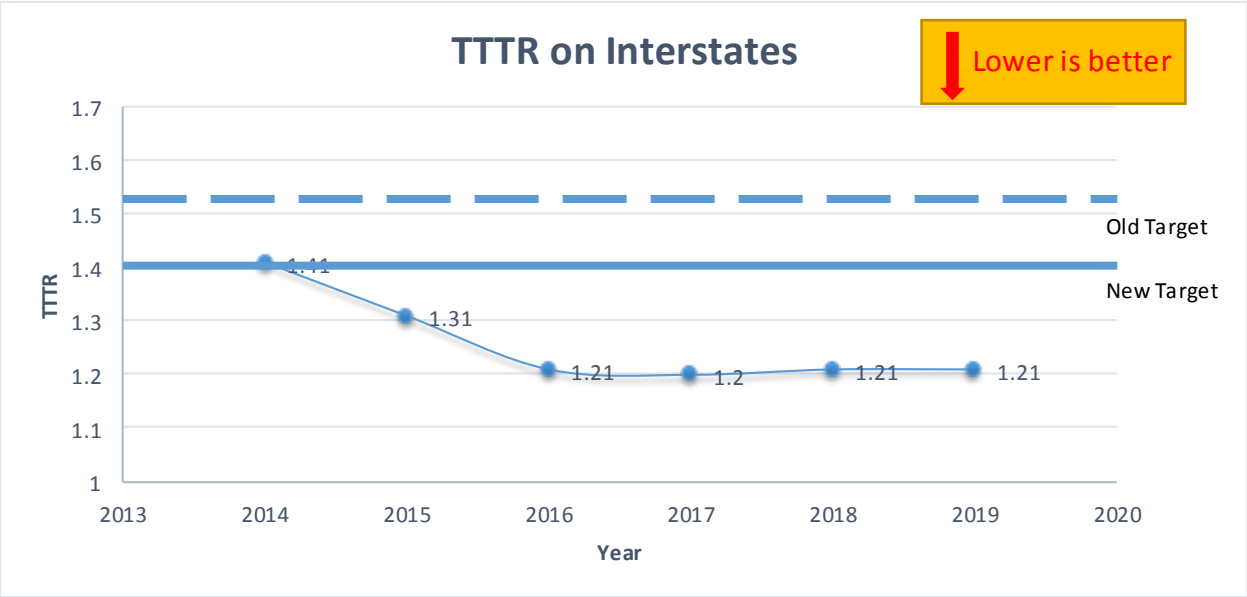

Figure 4. Truck Travel Time Reliability on Interstates

CMAQ
PERFORMANCE MEASURES

In accordance with 23 CFR 490, FHWA established performance measures for the State DOTs to use in assessing the CMAQ Improvement Program for traffic congestion on the NHS. The following is a list of the required performance measures for the CMAQ program.

Performance Measures
Annual Hours of Peak Hour Excessive Delay per Capita (known as the PHED measure)
Percent of Non-Single Occupancy Vehicle (non-SOV) Travel

CONDITION BASED PERFORMANCE MEASURES

- The PHED is used to determine traffic congestion levels on the NHS in urbanized areas.
- The annual excessive delay is based on the difference between the actual travel time and the threshold travel time for a roadway segment.
- The threshold for excessive delay is based on the travel time at 20 miles per hour (mph) or 60 percent of the posted speed limit for both of the following periods:
    - 6:00 AM-10:00 AM Weekdays
    - 3:00 PM-7:00 PM or 4:00 PM – 8:00 PM Weekdays
- The annual excessive delay is then multiplied by the hourly traffic volume and occupancy factor for passenger cars, buses, and combination vehicles. Then the sum of annual excessive delay for all segments is divided by the latest urbanized area population estimates to determine the PHED.
- The Non-SOV measure is directly obtained from the Commuting data in the American Community Survey from the U.S. Census.

Additional Information:

- These measures only apply to urbanized areas of more than one million people that are also in nonattainment or maintenance areas for ozone, carbon monoxide, or particular matter for the first performance period (January 1, 2018 – December 31, 2021). Therefore, these measures only apply for Memphis-West Memphis-Marion Urbanized Area.
- In the second performance period beginning on January 1, 2022, the population threshold changes to greater than 200,000.
- The PHED and Percent of Non-SOV travel measures will be a single target for the Memphis-West Memphis-Marion Urbanized Area.
- Population growth and increasing travel will affect traffic congestion in urban areas.

- These measures will not be subject to significant progress determination.

MID-PERFORMANCE PERIOD

The targets were set in coordination with the Memphis MPO, West Memphis MPO, Tennessee DOT, and Mississippi DOT through a Tri-State PM3 measures working group. The working group also included members of the Arkansas, Mississippi, and Tennessee FHWA Division Offices as well as the University of Tennessee.

The 2-year condition of the PHED and percent Non-SOV Travel were reviewed and compared with the 2-year targets established in the 2018 Baseline Report. Adjustments have been made for 4-year targets to reflect the latest trend.

4-YEAR TARGET ADJUSTMENT

The current midpoint of PHED is 6.70 hours, which is significantly lower than the current 4-year target of 18.80 hours. The working group agreed to update the 4-year target for PHED to 8.00 hours considering low construction activity in the Greater Memphis Area and the possible increase of telecommuting after COVID-19. Figure 5 shows the data and new target for PHED in the Greater Memphis Area.

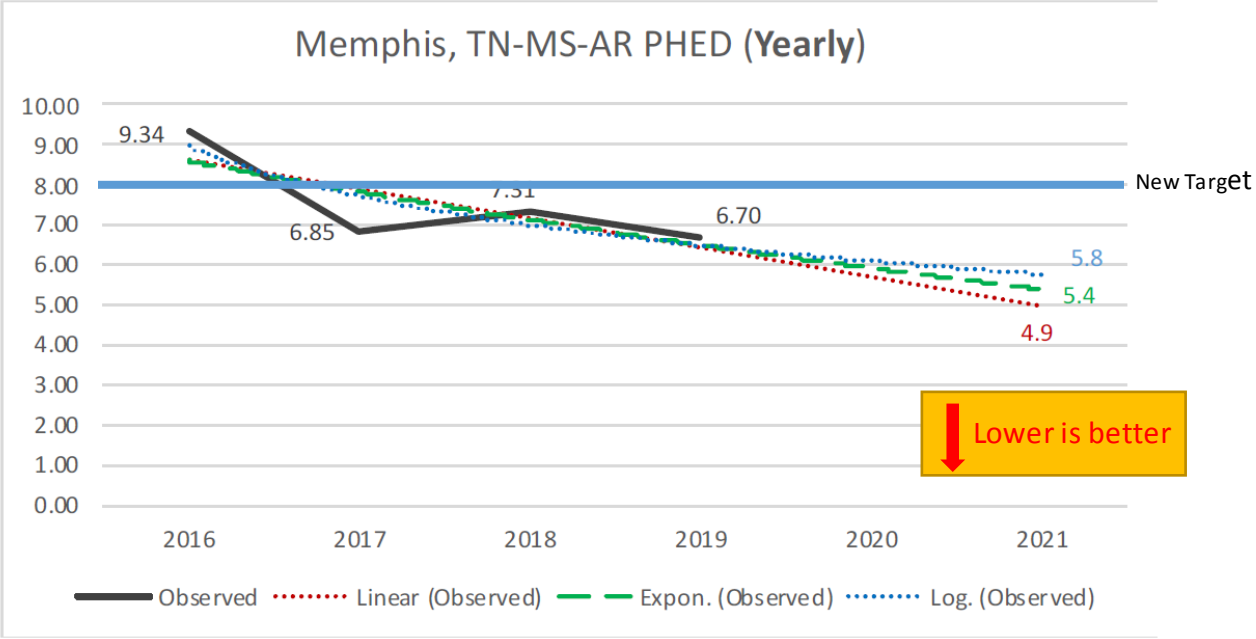

Figure 5. PHED Trend Analysis for Greater Memphis Area
(Source: Memphis MPO CMAQ Performance Plan 2020)

For Non-SOV, 2017 and 2018 American Community Survey (ACS) data for the Memphis TN-MS-AR Urbanized Area shows that the percentage has declined from 16.5% to 16.0% in 2017 and 15.9% in 2018. The Tri-State working group reviewed trend analysis and discussed other factors that could impact the 4-year target, including the change in the number of people communing to work due to COVID-19. It was noted that those traveling to work are essential employees and less likely to have the opportunity to carpool. Understanding that these factors may cause the future percentage to be lower than the trend, the group decided to build in a buffer that was slightly lower than the linear trend analysis. The working group agreed to update the 4-year target for Percent of Non-SOV Travel to 14.5%. Figure 6 shows the data and new target for Non-SOV in the Greater Memphis Area.

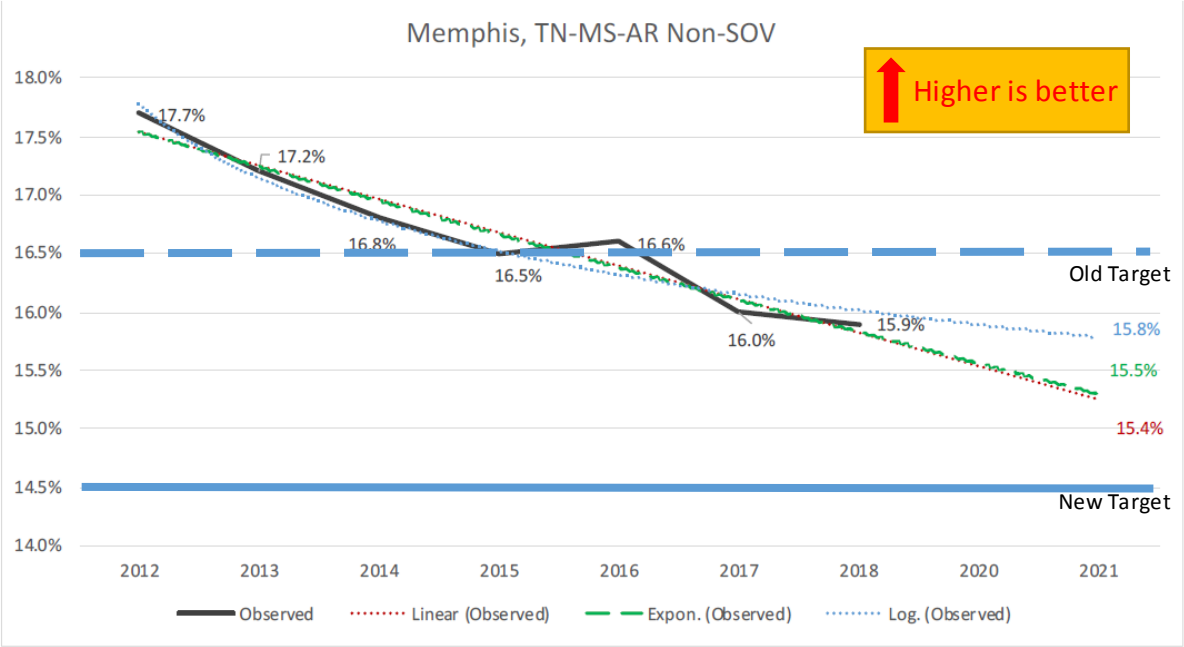

Figure 6. Non-SOV Trend Analysis for Greater Memphis Area
(Source: Memphis MPO CMAQ Performance Plan 2020)