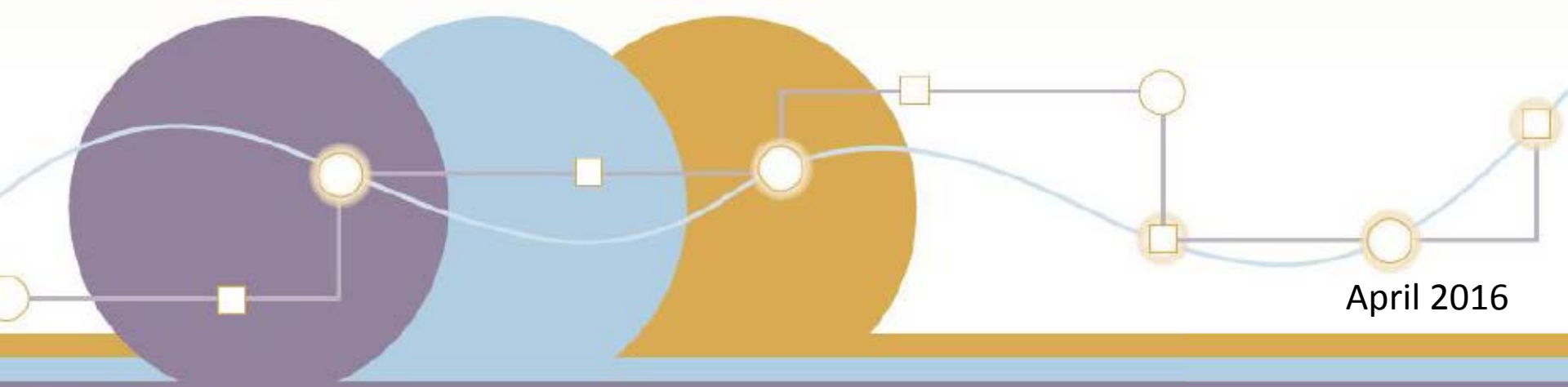
National Performance Management Measures NPRM

Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program

Overview Presentation



April 2016

Opening Comments and Introductions

Bob Arnold

Director

FHWA Office of Transportation Management

Today's Webinar

Part 1

Introduction to Transportation Performance Management

Francine Shaw Whitson, *Office of Infrastructure*

Part 2

Summary of Key Concepts, Performance Measures and Metrics

Rich Taylor, *Office of Operations*

Part 3

Proposed Performance Measures

Rich Taylor and Nicole Katsikides, *Office of Operations* and
Emily Biondi, *Office of Planning, Environment, & Realty*

Part 4

Target Establishment, Reporting, Significant Progress, and RIA

Francine Shaw Whitson, *Office of Infrastructure*

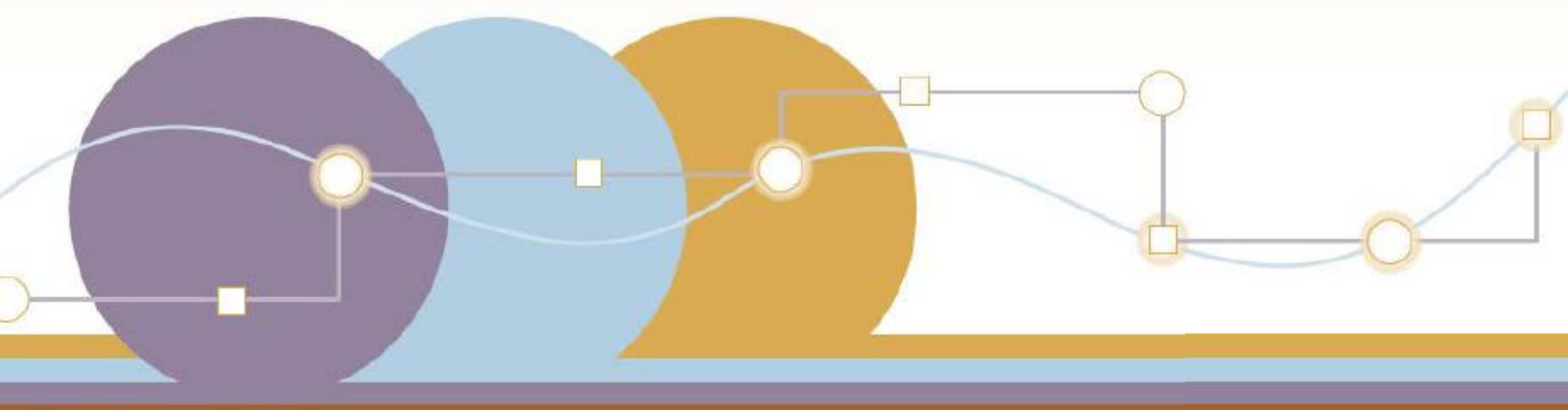
Part 5

Summary and Q & A

Francine Shaw Whitson, *Office of Infrastructure*

Part 1

Introduction to Transportation Performance Management



Why Are We Doing Performance Management?

- To transform the Federal-aid Highway Program and to provide a means to the **most efficient investment** of Federal transportation funds
- To refocus on **national transportation goals**
- To increase the **accountability and transparency** of the Federal-aid Highway Program
- To **improve decision-making** through performance-based planning and programming

FHWA TPM Rulemaking Schedule

Performance Area	NPRM	Comments Due	Final Rule
Safety Performance Measures	March 11, 2014	Closed June 30, 2014	Published March 15, 2016
Highway Safety Improvement Program	March 28, 2014	Closed June 30, 2014	Published March 15, 2016
Statewide and Metro Planning; Non-Metro Planning	June 2, 2014	Closed October 2, 2014	Anticipated May 2016
Pavement and Bridge Performance Measures	January 5, 2015	Closed May 8, 2015	Anticipated October 2016
Highway Asset Management Plan	February 20, 2015	Closed May 29, 2015	Anticipated October 2016
Performance of the NHS, Freight, and CMAQ Measures	April 22, 2016	Open until August 2016	TBD

Summary of Proposed New 23 CFR Part 490

Subpart A: General Information, Target Establishment, Reporting, and NHPP and NHFP Significant Progress Determination

Subpart B: Measures to Assess the Highway Safety Improvement Program (HSIP)

Subpart C: Measures to Assess Pavement Condition

Subpart D: Measures to Assess Bridge Condition

Subpart E: Measures to Assess Performance of the National Highway System (NHS)

Subpart F: Measures to Assess Freight Movement on the Interstate System

Subpart G: Measure for Assessing the CMAQ Program – Traffic Congestion

Subpart H: Measures for Assessing the CMAQ Program – On-Road Mobile Source Emissions

Final Measures: Safety

Measure Area	Proposed Performance Measures
Highway Safety Improvement Program Performance Measures (Subpart B)	• Number of Fatalities • Number of Serious Injuries • Rate of Fatalities per 100 million VMT • Rate of Serious Injuries per 100 million VMT • Number of non-motorized fatalities and non-motorized serious injuries

Note: These measures apply to all public roads, regardless of ownership/classification.

More information about these measures can be found in previous presentations and fact sheets on the Office of TPM Website (www.fhwa.dot.gov/tpm).

Proposed Measures: Pavement and Bridge Condition

Measure Area	Proposed Performance Measures
Pavement Condition Performance Measures (Subpart C)	• Percentage of pavements of the Interstate System in Good condition* • Percentage of pavements of the non-Interstate NHS in Good condition* • Percentage of pavements of the Interstate System in Poor condition* • Percentage of pavements of the non-Interstate NHS in Poor condition*
NHS Bridge Condition Performance Measures (Subpart D)	• Percentage of NHS Bridges Classified as in "Good" Condition* • Percentage of NHS Bridges Classified as in "Poor" Condition*

More information about these measures can be found in previous presentations and fact sheets on the Office of TPM Website (www.fhwa.dot.gov/tpm).

*These measures contribute to the National Highway Performance Program (NHPP)

Proposed Measures: Performance of the NHS and Freight Movement on the Interstate

Measure Area	Proposed Performance Measures
Performance of the National Highway System (Subpart E)	• Percent of the Interstate System providing for Reliable Travel Times* • Percent of the non-Interstate NHS providing for Reliable Travel Times*
	• Percent of the Interstate System where Peak Hour Travel Times meet expectations* • Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations*
Freight Movement on the Interstate System (Subpart F)	• Percent of the Interstate System Mileage providing for Reliable Truck Travel Times** • Percent of the Interstate System Mileage Uncongested**

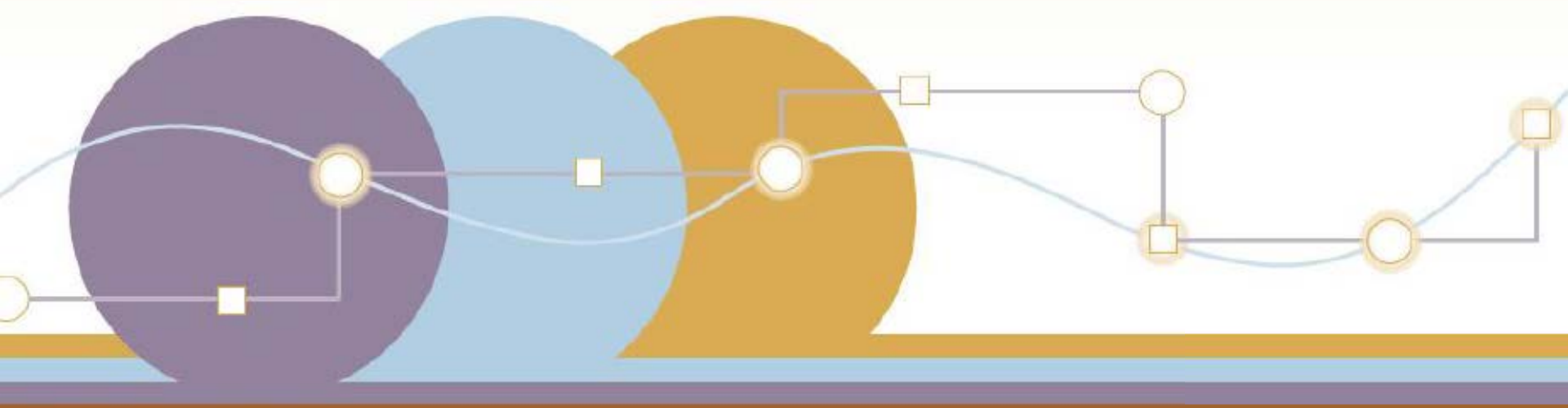
*These measures contribute to the National Highway Performance Program (NHPP)
**These measures contribute to the National Highway Freight Program (NHFP)

Proposed Measures: CMAQ Program

Measure Area	Proposed Performance Measures
Measures for Assessing the CMAQ Program – Traffic Congestion (Subpart G)	• Annual Hours of Excessive Delay Per Capita
Measures for Assessing the CMAQ Program – On-Road Mobile Source Emissions (Subpart H)	• Total Emission Reductions

Part 2

Summary of Key Concepts, Performance Measures and Metrics



Metrics, Thresholds, and Measures

	Each Reporting Segment		Entire Applicable Network
	METRIC **A quantifiable indicator of performance or condition**	**THRESHOLD** **The level of performance for a specific reporting segment that would determine its inclusion in the measure**	**MEASURE** **An expression based on a metric, used to establish targets and to assess progress towards achieving the established target**
Example	Average truck speed = **52.30 mph**	Uncongested = **Avg truck speed > 50.00 mph**	2,510 uncongested miles 3,000 total miles = **83.7% uncongested**

Measures vs. Targets

Entire Applicable Network

	MEASURE	TARGET
	An expression based on a metric, used to establish targets and to assess progress towards achieving the established target	**A quantifiable level of performance or condition, as a value for a measure, to be achieved within a time period required by FHWA**
Example	**83.7% total Interstate miles uncongested**	Target: 80.0% Uncongested Actual: 83.7% Uncongested ✓ **Target Achieved**

Subpart E: Proposed Measures, Metrics and Applicability

Part 490 Subpart	Measure	Metric	Applicability
Subpart E - Performance of the National Highway System	Percent of the Interstate System providing for Reliable Travel Times	Level of Travel Time Reliability (LOTTR)	Interstate System mileage within the State or each MPA
	Percent of the non-Interstate NHS providing for Reliable Travel Times	Level of Travel Time Reliability (LOTTR)	Non-Interstate NHS within the State or each MPA
	Percent of the Interstate System where Peak Hour Travel Times meet expectations	Peak Hour Travel Time Ratio (PHTTR)	Interstate System mileage within each urbanized area with a population over 1 million
	Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations	Peak Hour Travel Time Ratio (PHTTR)	Non-Interstate NHS mileage within each urbanized area with a population over 1 million

Subpart F: Proposed Measures, Metrics and Applicability

Part 490 Subpart	Measure	Metric	Applicability
Subpart F - Freight Movement on the Interstate System	Percent of the Interstate System mileage providing for Reliable Truck Travel Times	Truck Travel Time Reliability (TTTR)	Interstate System mileage within the State or each MPA
	Percent of the Interstate System Mileage Uncongested	Average Truck Speed	Interstate System mileage within the State or each MPA

Subparts G & H: Proposed Measures Metrics, and Applicability

Part 490 Subpart	Measure	Metric	Applicability
Subpart G – CMAQ – Traffic Congestion	Annual Hours of Excessive Delay Per Capita	Total Excessive Delay	NHS roads in urbanized area with a population over 1 million are, all or in part, designated as nonattainment or maintenance areas for ozone (O_3), carbon monoxide (CO), or particulate matter (PM)
Subpart H – CMAQ - On-Road Mobile Source Emissions	2- and 4-year Total Emission Reductions for each applicable criteria pollutant and precursor	Annual Tons of Emission Reductions by project for each applicable criteria pollutant and precursor	All projects funded by CMAQ program in areas designated as nonattainment or maintenance for O_3, CO, or PM

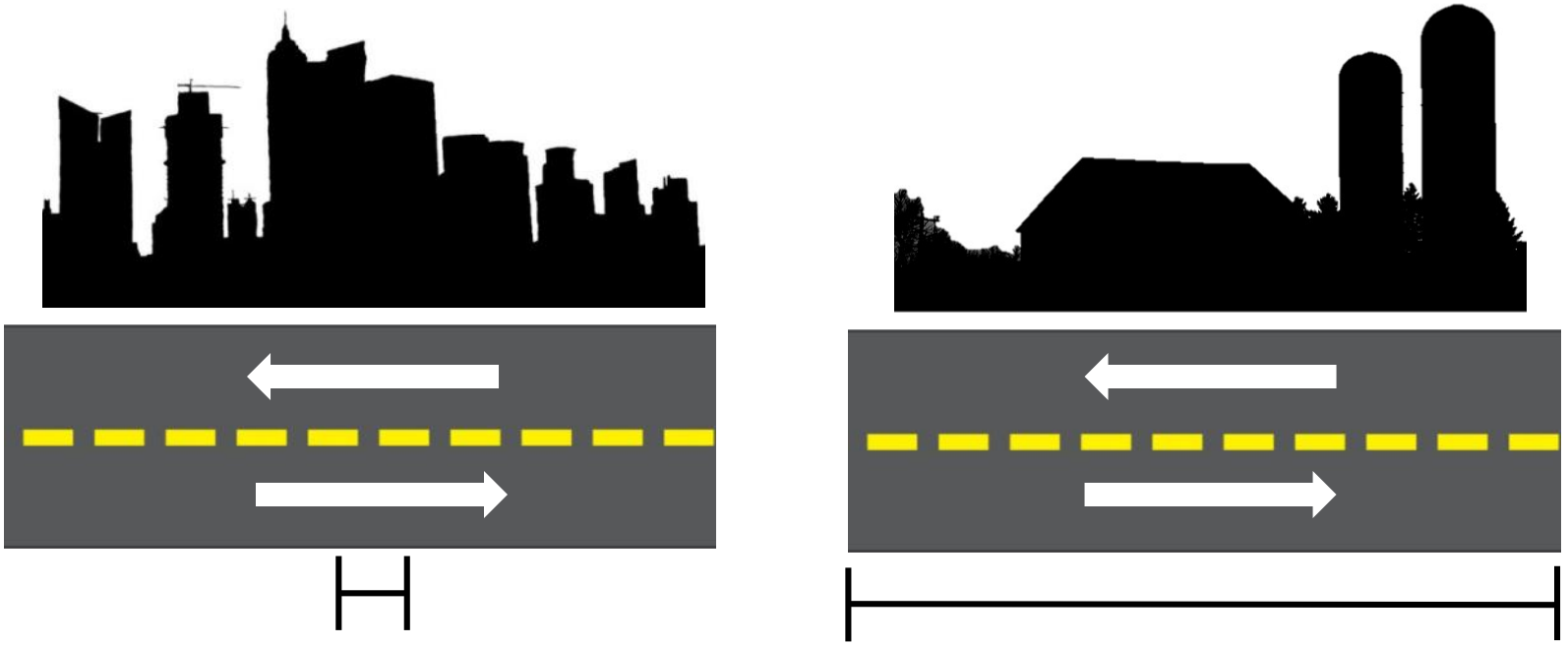
What is the National Performance Management Research Data Set (NPMRDS)?

- Is a data set provided by FHWA **monthly to State DOTs and MPOs**
- Includes **travel times derived from all traffic using the highway system**, in 5-minute bins
- Includes a breakdown of travel times of **freight vehicles** and **all traffic (freight and passenger vehicles)**
- Uses travel times that are reported via vehicle probes on **contiguous segments of roadway** covering the entire mainline NHS
- **Uses vehicle probes** that could include mobile phones, vehicle transponders, and portable navigation devices

Equivalent Data Source Requirements

- Include contiguous segments that cover the full NHS, as defined in 23 U.S.C. 103, within the State boundary and/or MPA
- Include average travel times for at least the same number of 5-minute intervals and the same locations that would be available in the NPMRDS
- Be populated with actual measured vehicle travel times and shall not be populated with travel times derived from imputed methods (historic travel times or other estimates)
- For each segment at 5-minute intervals throughout a full day (24 hours) for each day of the year, include the average travel time, recorded to the nearest second, representative of at least one of the following:
  - All traffic on each segment of the NHS (freight and passenger)
  - Freight vehicle traffic on each segment of the Interstate System

Reporting Segments – Mainline NHS



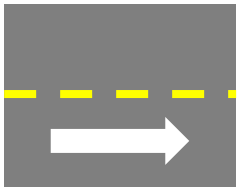
Maximum
Urban Length
½ mile*

Maximum
Rural Length
10 miles*

**Unless an individual Travel Time Segment is longer*

Example of NPMRDS Travel Times

Single Road Segment (eastbound travel)



All 5-min bins in a 24-hour period

Full Year (Jan 1-Dec 31)

5-minute bins (105,120 per year)		Avg Travel Time (EB)	
		Freight Vehicles (sec)	All Traffic (sec)
Feb 3	6:00 – 6:05am	32	31
Feb 3	6:05 – 6:10am	31	30
Feb 3	6:10 – 6:15am	--	--
Feb 3	6:15 – 6:20am	37	36
Feb 3	6:20 – 6:25am	36	37
Nov 7	7:25 – 7:30pm	29	29
Nov 7	7:30 – 7:35pm	--	28
Nov 7	7:35 – 7:40pm	30	30
Nov 7	7:40 – 7:45pm	29	29
Nov 7	7:45 – 7:50pm	31	31

Part 3

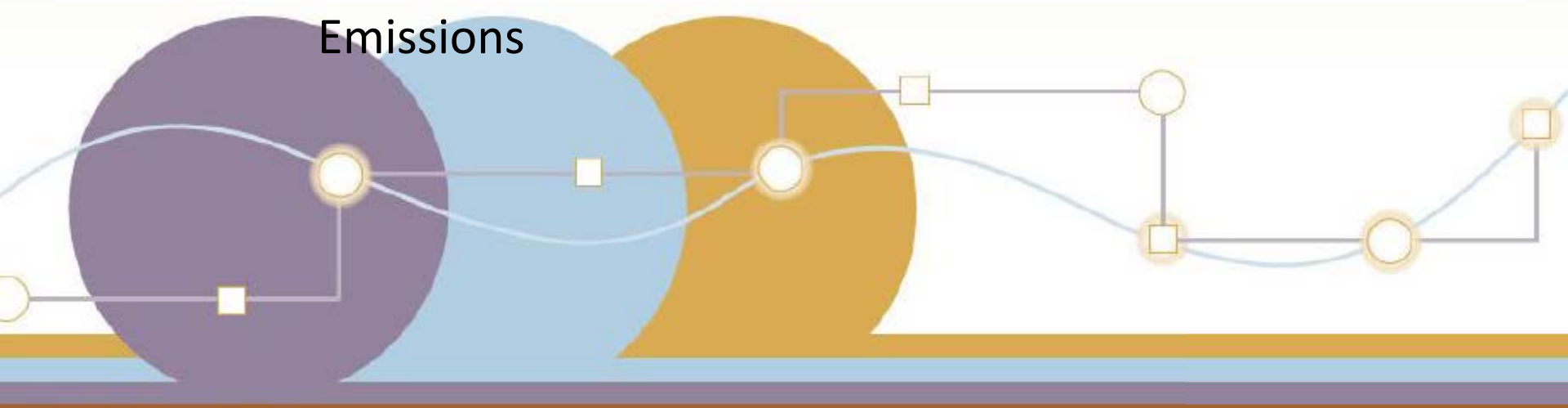
Proposed Performance of the NHS, Freight, and CMAQ Measures

Subpart E: Measures to Assess Performance of the NHS

Subpart F: Measures for Assessing Freight Movement on the Interstate System

Subpart G: Measures to Assess CMAQ – Traffic Congestion

Subpart H: Measures to Assess CMAQ – On-Road Mobile Source Emissions



Subpart E: Measures to Assess Performance of the NHS

	Interstate System	Non-Interstate NHS
Travel Time Reliability	1 Percent of the Interstate System providing for Reliable Travel Times	2 Percent of the non-Interstate NHS providing for Reliable Travel Times
Peak Hour Travel Time	3 Percent of the Interstate System in urbanized areas over 1M in population where Peak Hour Travel Times meet expectations	4 Percent of the non-Interstate NHS in urbanized areas over 1M in population where Peak Hour Travel Times meet expectations

Measures to Assess Performance of the NHS – Travel Time Reliability

	Each Reporting Segment		Entire Applicable Network
	METRICS **Level of Travel Time Reliability (LOTTR) of each time period of each reporting segment for the full extent:** **1. Interstate System** **2. Non-Interstate NHS**	**THRESHOLD** **LOTTR < 1.50 for the reporting segment = reliable**	**MEASURES** **Percent of system providing for reliable travel times.** **1. Interstate System** **2. Non-Interstate NHS**
Interstate Example	30 sec (80th percentile)/ 15 sec (50th percentile) **LOTTR = 2.00**	2.00 > 1.50 = **Not Reliable**	8,125 reliable miles/ 10,000 total Interstate miles = **81.3% reliable**

Measure vs. Target

Entire Applicable Network

MEASURES

Percent of system providing for reliable travel times. Threshold: < 1.50

1. **Interstate System**
2. **Non-Interstate NHS**

TARGETS

1. **% of Interstate System provides reliable travel times;**
2. **% of non-Interstate NHS provides reliable travel times**

Interstate Example

81.3%

Interstate miles providing for reliable travel times

Target: 80.0 %
Actual: 81.3 %

✓ **Target Achieved**

Measures to Assess Performance of the NHS – Peak Hour Travel Time

	Each Reporting Segment		Entire Applicable Network
	METRICS **Peak Hour Travel Time Ratio (PHTTR) of each reporting segment for the full extent in urbanized areas of > 1 million:** **1. Interstate System** **2. Non-Interstate NHS**	**THRESHOLD** **PHTTR < 1.50 for the reporting segment = reliable**	**MEASURES** **Percent of each system in urbanized areas where peak hour travel times meet expectations**
Interstate Example	30 sec (longest)/ 25 sec (desired) **PHTTR = 1.20**	Segment: 1.20 < 1.50 = **Met Expectations**	800 miles met expectations/ 1,000 total miles = **80.0%**

Measure vs. Target

Entire Applicable Network

	MEASURES	TARGETS
	Percent of each system in urbanized areas where peak hour travel times meet expectations	**1. % of Interstate System in area that meets expectations** **2. % of non-Interstate NHS that meets expectations**
Interstate Example	**80.0 %** Interstate miles met expectations	Target: 80.0% Actual: 80.0% ✓ **Target Achieved**

Subpart F: Measures to Assess Freight Movement on the Interstate System

1 **Truck Travel Time Reliability**	Percent of the Interstate System Mileage providing for Reliable Truck Travel Times
2 **Mileage Uncongested**	Percent of the Interstate System Mileage Uncongested

Measures to Assess Freight Movement on the Interstate System – Truck Travel Time Reliability

	Each Reporting Segment		Entire Applicable Network
	METRIC **Truck Travel Time Reliability (TTTR) for each segment on the Interstate System**	**THRESHOLD** **TTTR < 1.50 for the reporting segment = reliable**	**MEASURE** **Percent of the Interstate System mileage providing for reliable truck travel times**
Example	60 (95th percentile)/ 42 (50th percentile) **TTTR = 1.43**	1.43 < 1.50 **Reliable**	2,492 reliable miles / 3,000 total miles = **81.3% reliable**

Measure vs. Target

Entire Applicable Network

	MEASURE	TARGET
	Percent of the Interstate System mileage providing for reliable truck travel times	**Percent of the Interstate System mileage providing for reliable truck travel times, during a calendar year**
Example	**81.3%** Interstate miles providing for reliable truck travel times	Target: 80.0% reliable miles Actual: 81.3% reliable miles ✓ **Target Achieved**

Measures to Assess Freight Movement on the Interstate System – Mileage Uncongested

Each Reporting Segment		Entire Applicable Network
METRIC **Average Truck Speed for each travel time segment on the Intestate System for a calendar year**	**THRESHOLD** **Average truck speed > 50 mph for the segment = uncongested**	**MEASURE** **Percent of the Interstate System mileage uncongested**
Example Average truck speed **= 52.30 mph**	52.30 mph > 50.00 mph = **Uncongested**	2,250 uncongested miles / 3,000 total miles = **75.0% uncongested**

Measure vs. Target

Entire Applicable Network

	MEASURE	TARGET
	Percent of the Interstate System mileage uncongested	**Percent of the Interstate System mileage uncongested, for a calendar year**
Example	**75.0%** Interstate miles uncongested	Target: 75.0% uncongested Actual: 75.0% uncongested ✓ **Target Achieved**

Subparts G and H: Measures to Assess the CMAQ Program

1 **CMAQ – Traffic Congestion (Subpart G)**	Annual Hours of Excessive Delay Per Capita
2 **CMAQ – On-Road Mobile Source Emissions (Subpart H)**	2- and 4-year Total Emission Reductions for each applicable criteria pollutant and precursor

Measure to Assess CMAQ – Traffic Congestion (Subpart G)

Each Reporting Segment		Entire Applicable Network
METRIC **Total excessive delay (vehicle-hours) for each reporting segment on the NHS**	**THRESHOLD** **Excessive delay travel time at threshold speed:** **a) Interstates/highways/ expressways: 35 mph** **b) Principal arterials and all other roads: 15 mph**	**MEASURE** **Annual hours of excessive delay per capita**
Example Total excessive delay, single 0.5 mi. Interstate segment: **863.025 vehicle-hours**	Threshold for 0.5 mi. Interstate segment: **51 seconds**	4.46M hrs excessive delay/ 1.05M population = **4.3 hours per capita**

Measure vs. Target

Entire Applicable Network

	MEASURE	TARGET
	Annual hours of excessive delay per capita	**Annual hours of excessive delay per capita, as established by the State DOT or MPO**
Example	**4.3 vehicle-hours** excessive delay per capita	Target: 5.0 hours/capita Actual: 4.3 hours/capita ✓ **Target Achieved**

Measure to Assess CMAQ – On-Road Mobile Source Emissions (Subpart H)

METRIC
Conversion of emission reductions from kg/day to short tons per year

MEASURE
Total emission reductions:
- **2-year cumulative emission reductions**
- **4-year cumulative emission reductions**

Example

2.127 kg/day × 0.4026 =
0.856 short tons CO per year

→

2-year emission reductions, all CO projects
1.796 short tons

Measure vs. Target

Example for CO Emissions, 2 Fiscal Years (2018-2019)

	MEASURE	TARGET
	Total reduction in CO emissions for 2 years	**Total reduction in CO emissions for 2 years, as established by the State DOT**
Example	Total 2-year reduction in CO emissions: **1.796 tons**	2-year target: 1.500 tons 2-year reduction: 1.796 tons ✓ **Target Achieved**

Summary of Data Sources and Requirements

Proposed Data Sources

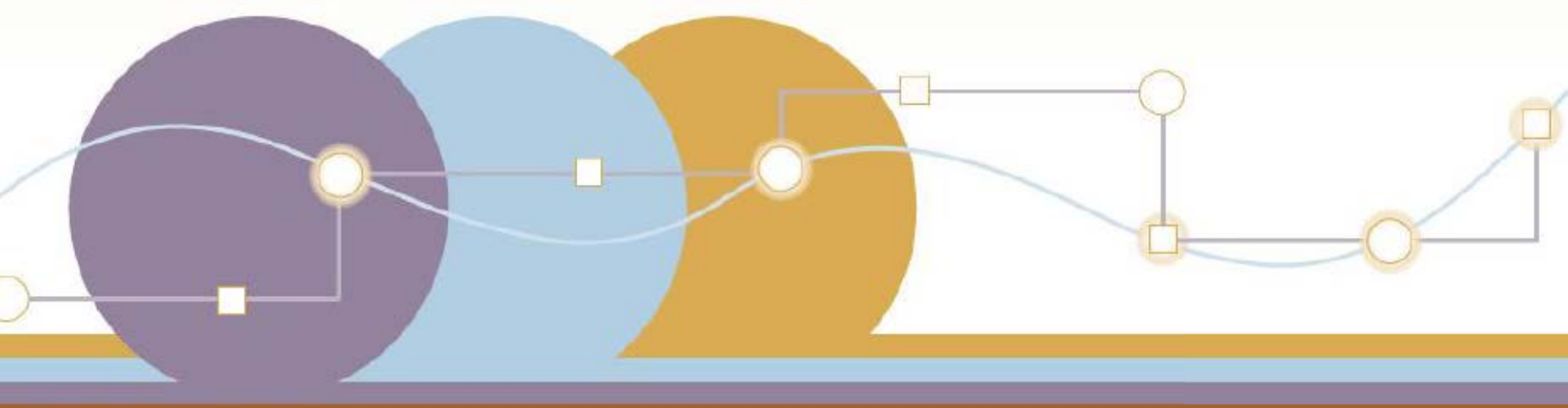
Data Sources	Applicable Measures (Proposed 23 CFR §490)
Highway Performance Monitoring System (HPMS)	• Pavement Condition Performance Measures • Performance of the NHS • Freight Movement on the Interstate System • CMAQ – Traffic Congestion
National Performance Management Research Data Set (NPMRDS) or equivalent data set	• Performance of the NHS • Freight Movement on the Interstate System • CMAQ – Traffic Congestion
EPA Green Book	• CMAQ – Traffic Congestion • CMAQ – On-Road Mobile Source Emissions
CMAQ Public Access System	• CMAQ – On-Road Mobile Source Emissions
Population Data from US Decennial Census	• Performance of the NHS – Peak Hour Travel Time Only • CMAQ – Traffic Congestion
Urbanized Area Boundary from US Decennial Census or Adjusted Boundary reported to HPMS	• Performance of the NHS – Peak Hour Travel Time Only • CMAQ – Traffic Congestion

Proposed Data Submittal Requirements for Metric Calculation

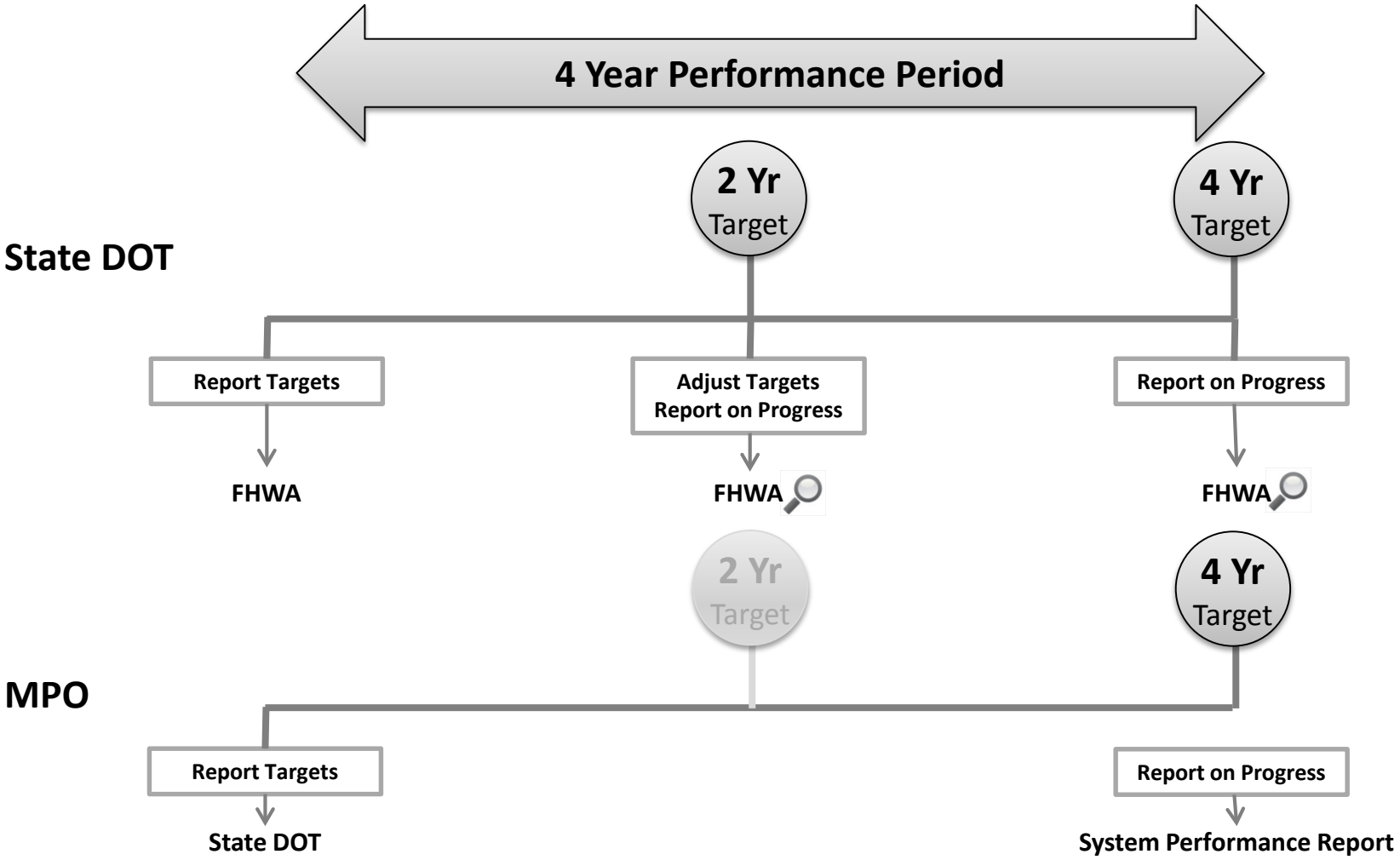
Data	Submit Data to	Submission Deadline	Extraction Date
CMAQ Emission Reduction Metric - Project Information for previous FY	CMAQ Project Tracking System	March 1	July 1 (in CMAQ Public Access System)
Travel Time Reliability Metrics	HPMS	June 15	August 15
Peak Hour Travel Time Metrics			
Freight – Truck Travel Time Reliability Metrics			
Freight – Mileage Uncongested Metrics			
CMAQ – Traffic Congestion Metrics			
Adjusted Urbanized Area Boundaries	*HPMS*	*Baseline Report*	--
Urbanized area populations			
Reporting Segments	*HPMS*	*November 1*	
State DOT's methodology to develop hourly traffic volume data for each reporting segment	*FHWA*	*60 days prior to submittal of First Baseline Report*	--

Part 4

Subpart A: Target Establishment, Reporting, Significant Progress Determination, and the Regulatory Impact Analysis



Overview


4 Year Performance Period
State DOT
2 Yr Target
4 Yr Target
Report Targets
Adjust Targets
Report on Progress
Report on Progress
FHWA
FHWA
FHWA
MPO
2 Yr Target
4 Yr Target
Report Targets
Report on Progress
State DOT
System Performance Report

Proposed Establishment of Performance Targets

State DOTs

- Establish 2-year and 4-year targets, as applicable
  - Within 1-year of the effective date of the final rule.
- Target adjustment of 4-year target allowed at the mid-point of target period
- Optional additional urbanized/non-urbanized targets

MPOs

- Establish 2-year and 4-year targets, as applicable, by either committing to support the State DOT target or establishing a quantifiable target.
  - Within 180 days of the State DOT
- If State DOT adjusts target, any MPO adjustments must occur within 180 days

Target Establishment Summary

Part 490 Subpart	Proposed Measures	State DOT Targets	MPO Targets	Performance Period Start Date
Subpart E - Performance of the National Highway System	Percent of the Interstate System providing for Reliable Travel Times	2-year* & 4-year targets - Statewide	4-year target only - MPA Area	January 1, 2018
	Percent of the non-Interstate NHS providing for Reliable Travel Times			
	Percent of the Interstate System where Peak Hour Travel Times meet expectations	Single 2-year & 4-year targets for each urbanized area		January 1, 2018
	Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations			
Subpart F - Freight Movement on the Interstate System	Percent of the Interstate System Mileage providing for Reliable Truck Travel Times	2-year & 4-year targets - Statewide	4-year target only - MPA Area	January 1, 2018
	Percent of the Interstate System Mileage Uncongested			

**<u>Non-Interstate NHS Travel Time Reliability only</u>: 2-year targets not required for 1st performance period*

Target Establishment Summary

Part 490 Subpart	Proposed Measures	State DOT Targets	MPO Targets	Performance Period Start Date
Subpart E - Performance of the National Highway System	Percent of the Interstate System providing for Reliable Travel Times	2-year* & 4-year targets - Statewide	4-year target only - MPA Area	January 1, 2018
	Percent of the non-Interstate NHS providing for Reliable Travel Times			
	Percent of the Interstate System where Peak Hour Travel Times meet expectations	Single 2-year & 4-year targets for each urbanized area		January 1, 2018
	Percent of the non-Interstate NHS where Peak Hour Travel Times meet expectations			
Subpart F - Freight Movement on the Interstate System	Percent of the Interstate System Mileage providing for Reliable Truck Travel Times	2-year & 4-year targets - Statewide	4-year target only - MPA Area	January 1, 2018
	Percent of the Interstate System Mileage Uncongested			

Target Establishment Summary

Part 490 Subpart	Proposed Measures	State DOT Targets	MPO Targets	Performance Period Start Date
Subpart G – CMAQ – Traffic Congestion	Annual Hours of Excessive Delay Per Capita	Single 2-year* & 4-year targets for each urbanized area		January 1, 2018
Subpart H – CMAQ - On-Road Mobile Source Emissions	Total Emission Reductions	2-year & 4-year targets – Statewide	2-year** & 4-year targets - MPA Area	October 1, 2017

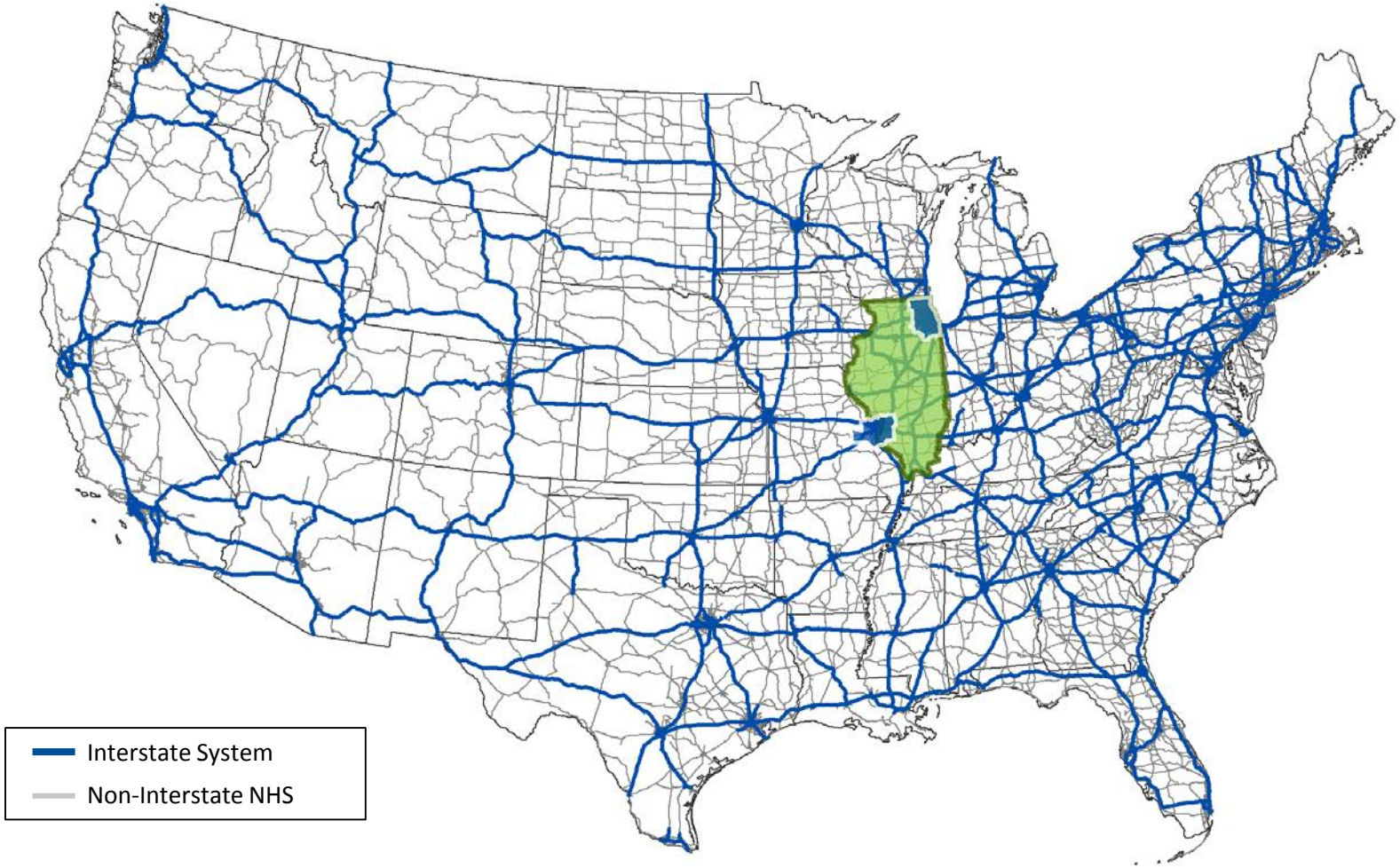
**<u>CMAQ- traffic congestion measure</u>: 2-year targets not required for 1st performance period*

Target Establishment Summary

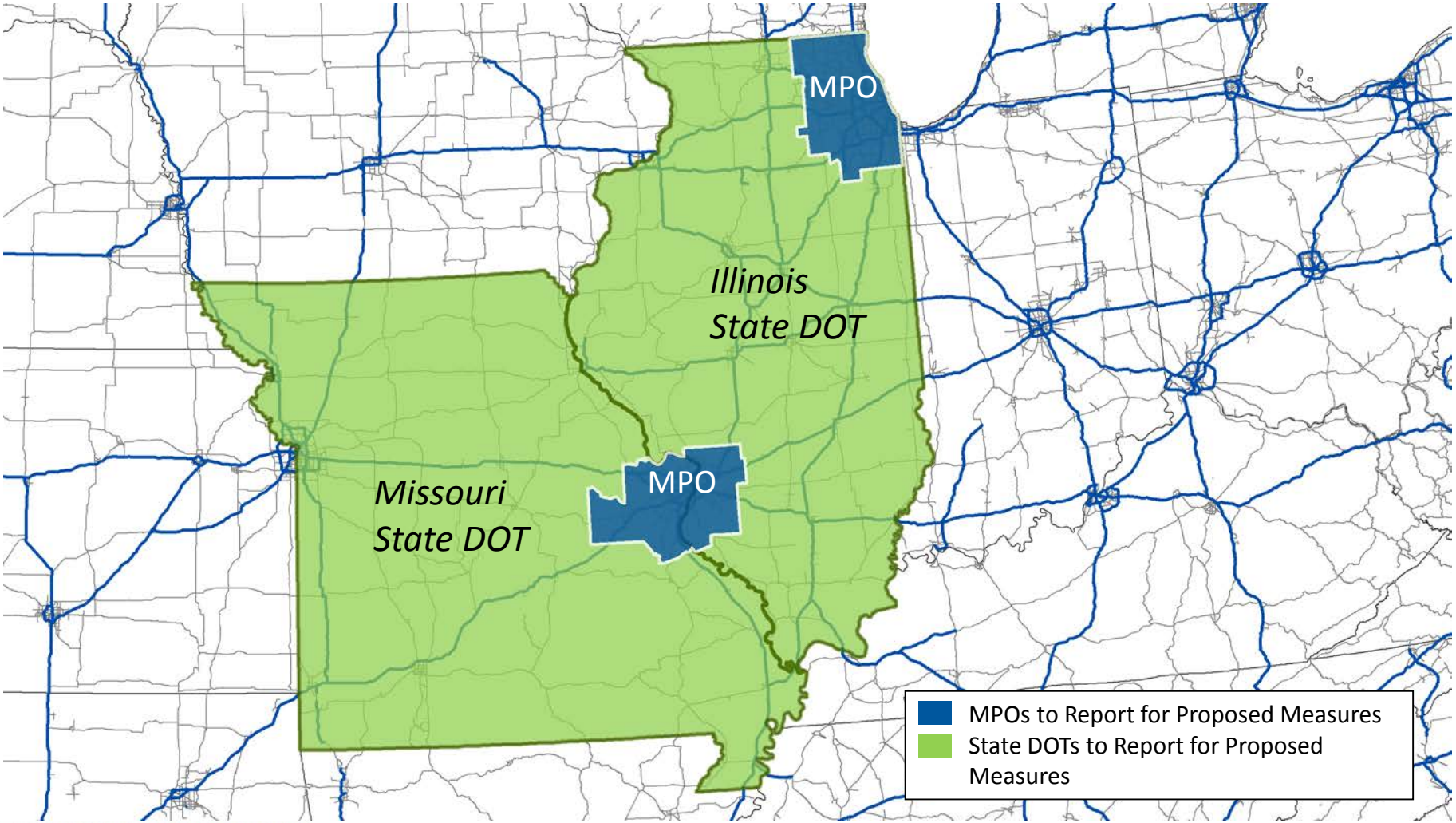
Part 490 Subpart	Proposed Measures	State DOT Targets	MPO Targets	Performance Period Start Date
Subpart G – CMAQ – Traffic Congestion	Annual Hours of Excessive Delay Per Capita	Single 2-year* & 4-year targets for each urbanized area		January 1, 2018
Subpart H – CMAQ - On-Road Mobile Source Emissions	Total Emission Reductions	2-year & 4-year targets - Statewide	2-year** & 4-year targets - MPA Area	October 1, 2017

** *On-Road mobile source emissions measure*: 2-year targets are only required when part of a designated nonattainment and maintenance area within the metropolitan planning area overlaps the boundary of an urbanized area with a population more than 1 million in population.

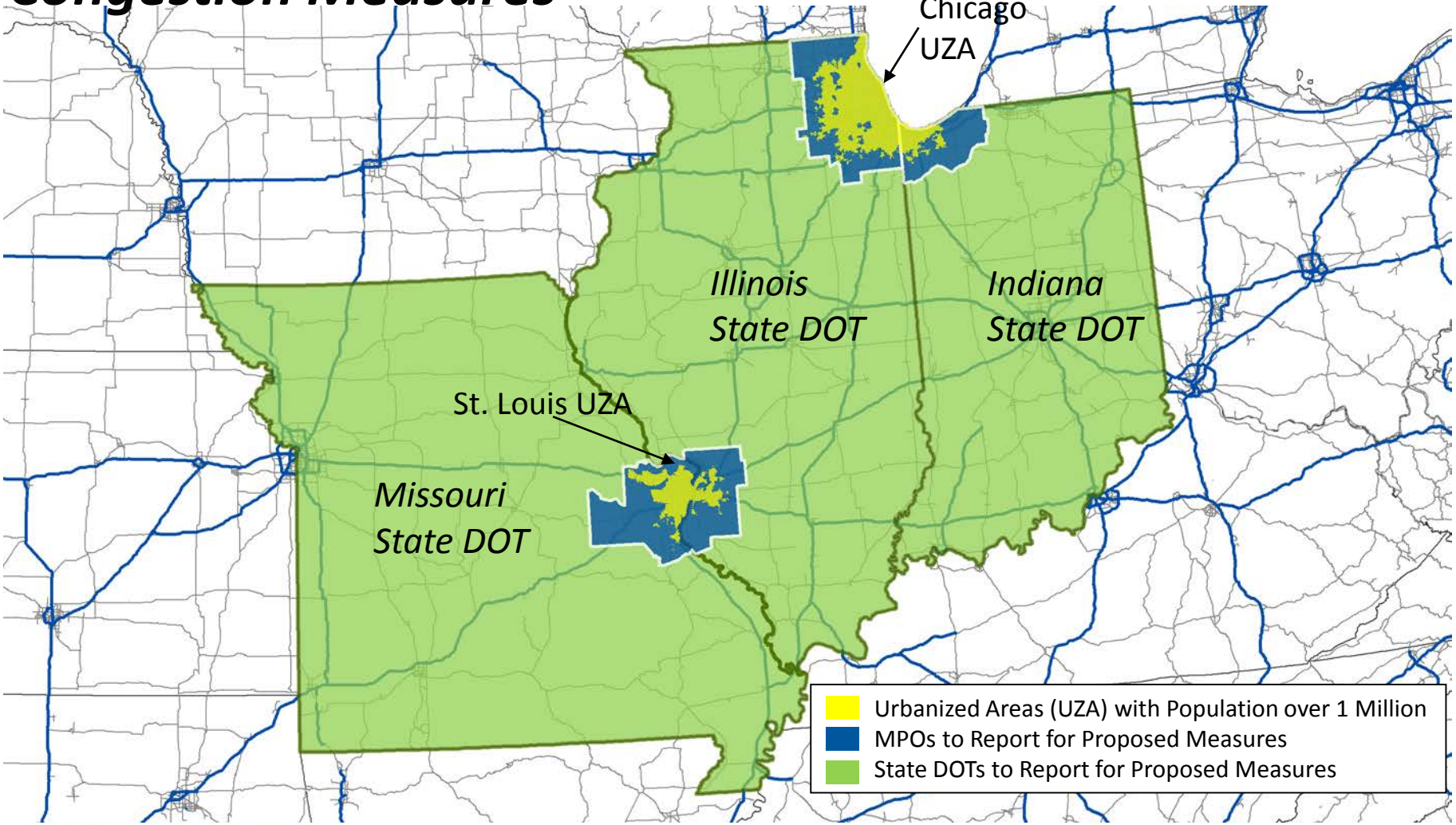
Geographic Areas used by Proposed Measures



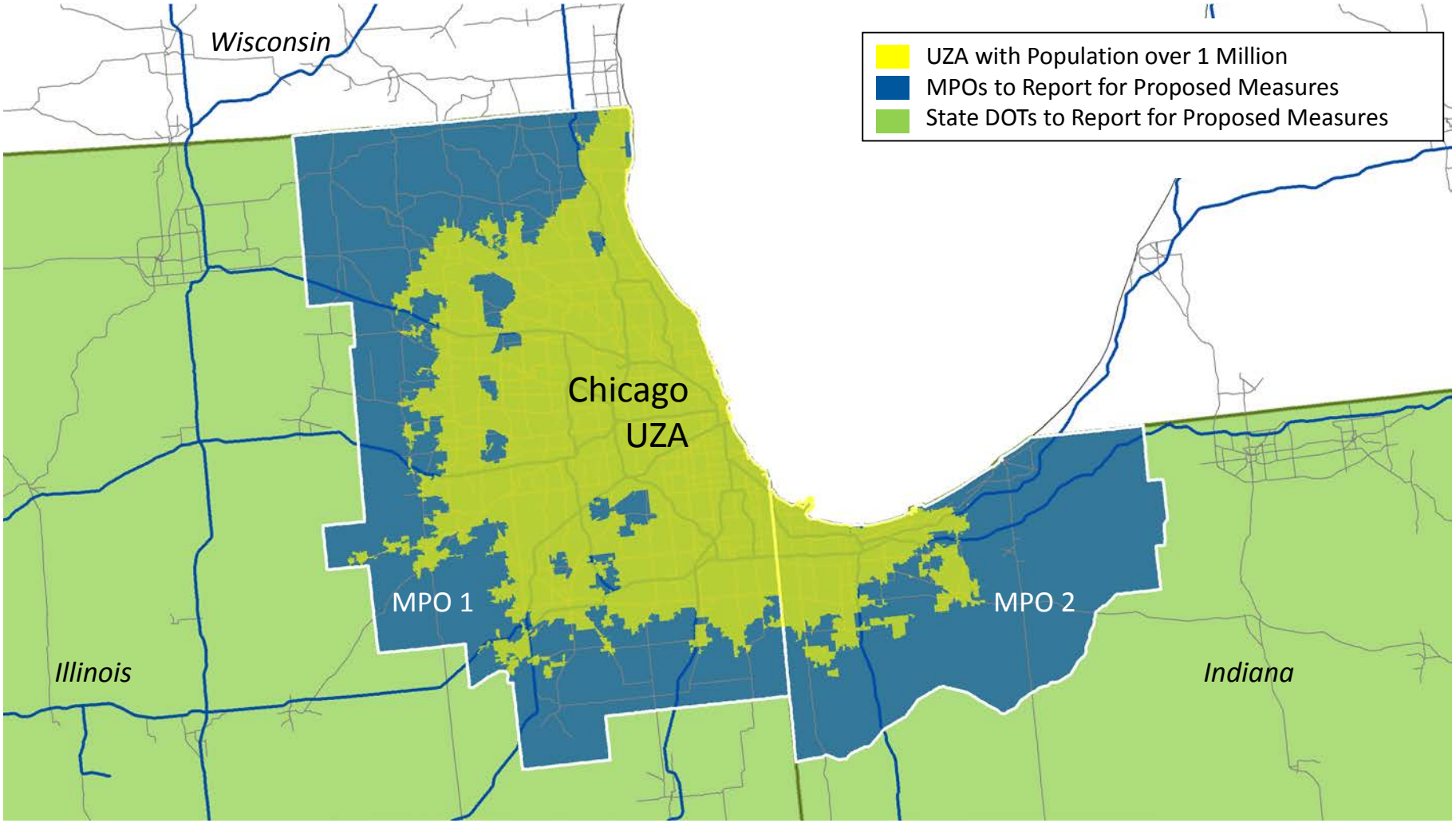
Geographic Areas used by Proposed Measures



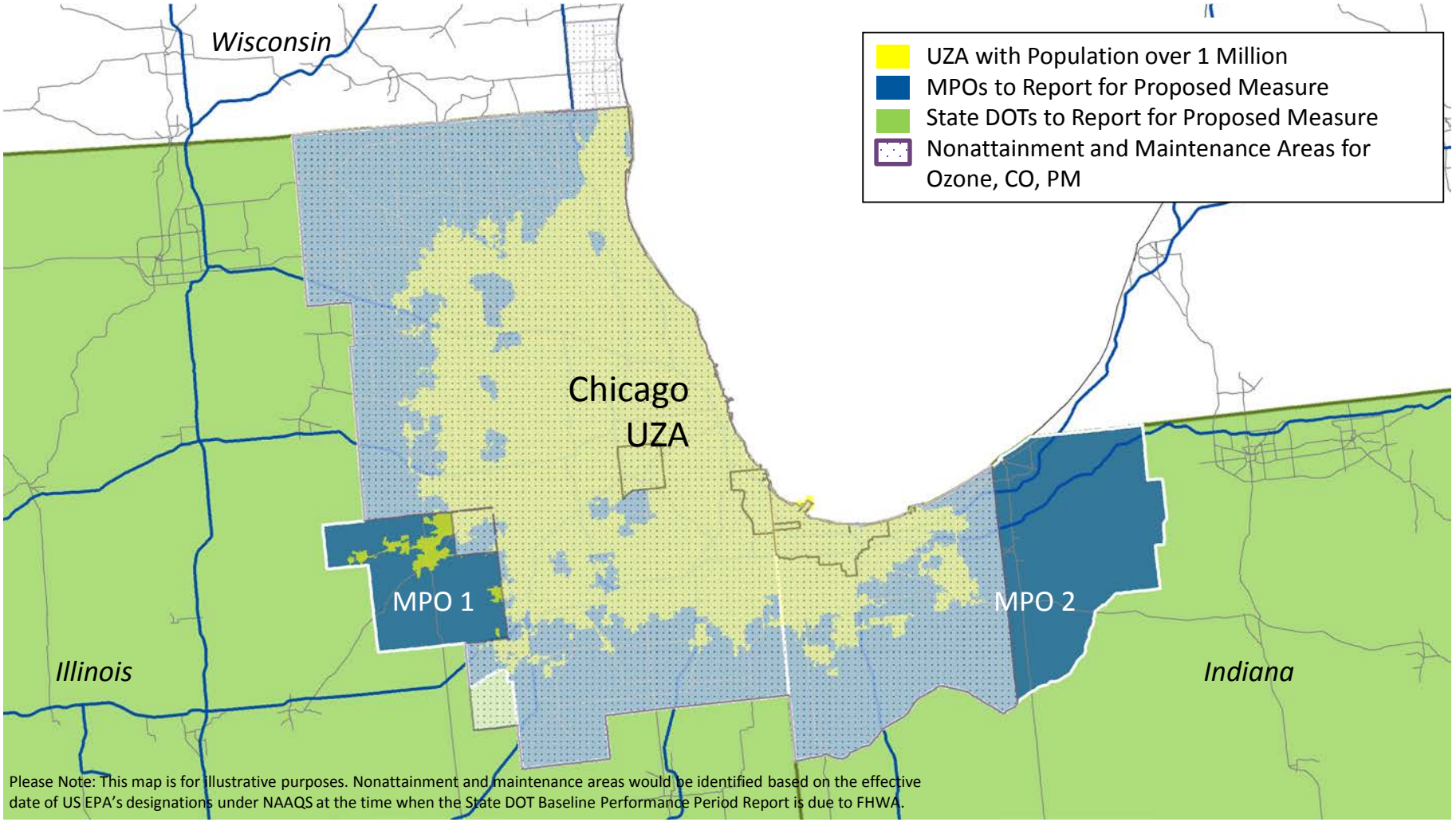
Geographic Areas: Peak Hour Travel Time & Traffic Congestion Measures



Geographic Areas: Peak Hour Travel Time

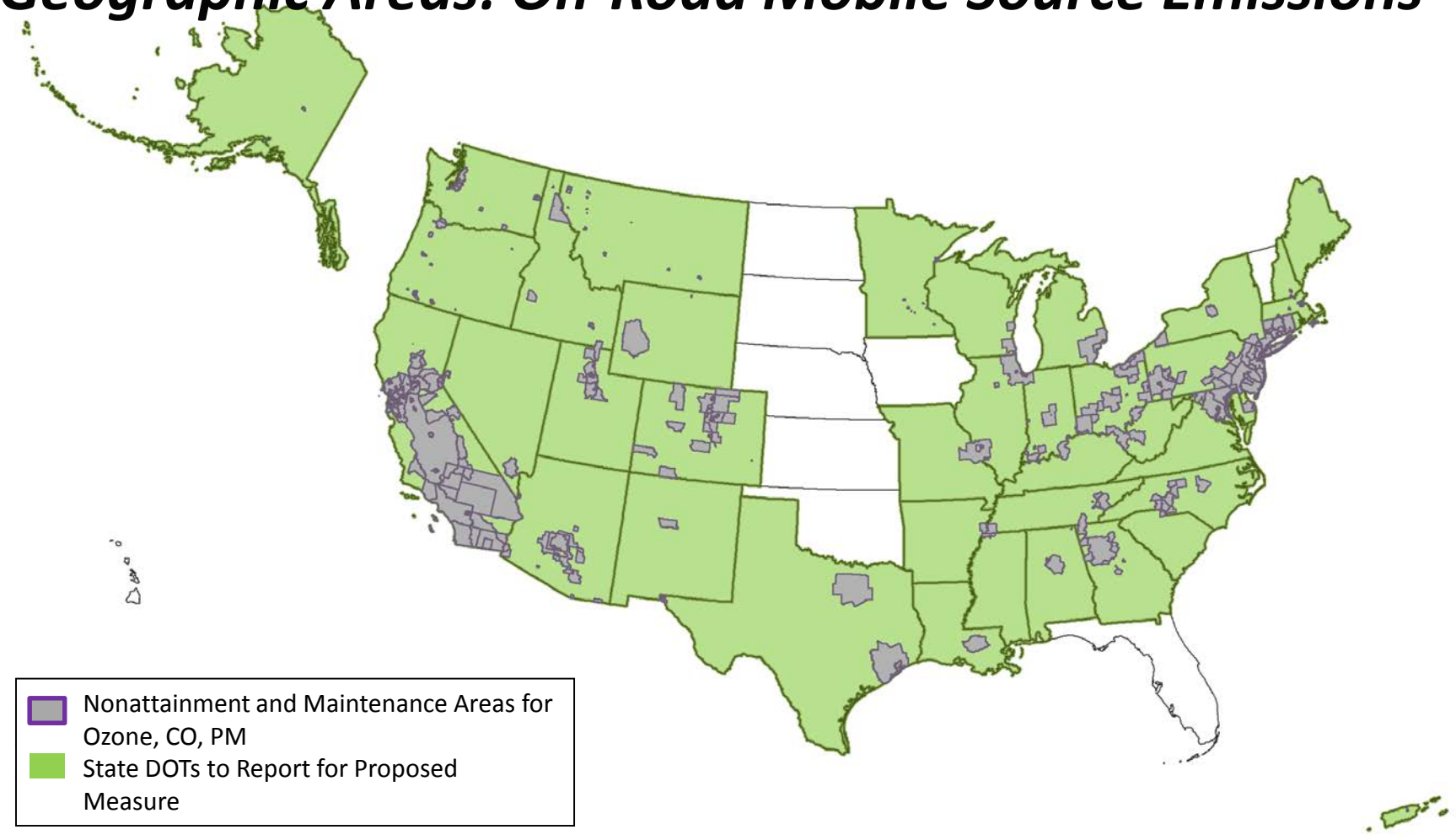


Geographic Areas: Traffic Congestion



Please Note: This map is for illustrative purposes. Nonattainment and maintenance areas would be identified based on the effective date of US EPA's designations under NAAQS at the time when the State DOT Baseline Performance Period Report is due to FHWA.

Geographic Areas: On-Road Mobile Source Emissions



Please Note: This map is for illustrative purposes. Nonattainment and maintenance areas would be identified based on the effective date of US EPA's designations under NAAQS at the time when the State DOT Baseline Performance Period Report is due to FHWA.

Reporting

Initial State DOT Reporting

Initial State Performance Report (due October 1, 2016)

- Performance where data is available
- Effectiveness of asset management investment strategy for NHS
- Progress toward targets
- Activity to reduce freight bottlenecks

State DOT Reporting on Performance Targets

Baseline Performance Period Report

- NHS limits
- Adjusted urbanized area boundaries and population data
- Nonattainment and maintenance areas and MPOs' CMAQ Performance Plan*
- Baseline performance
- 2-year and 4-year targets
- Discussion of congestion at freight bottle necks.
- Relationship to other plans, including freight

Mid Performance Period Progress Report

- 2-year performance
- Progress discussion
- Investment strategy effectiveness
- Adjusted 4-year targets (optional)*
- Extenuating circumstances*
- Target achievement discussion*
- MPOs' CMAQ Performance Plans*

*Only include when applicable

Full Performance Period Progress Report

- Same content as Mid Performance Period Progress Report, except:
  - Reporting on 4-year performance
  - No option for adjusted targets

MPO Reporting on Performance Targets

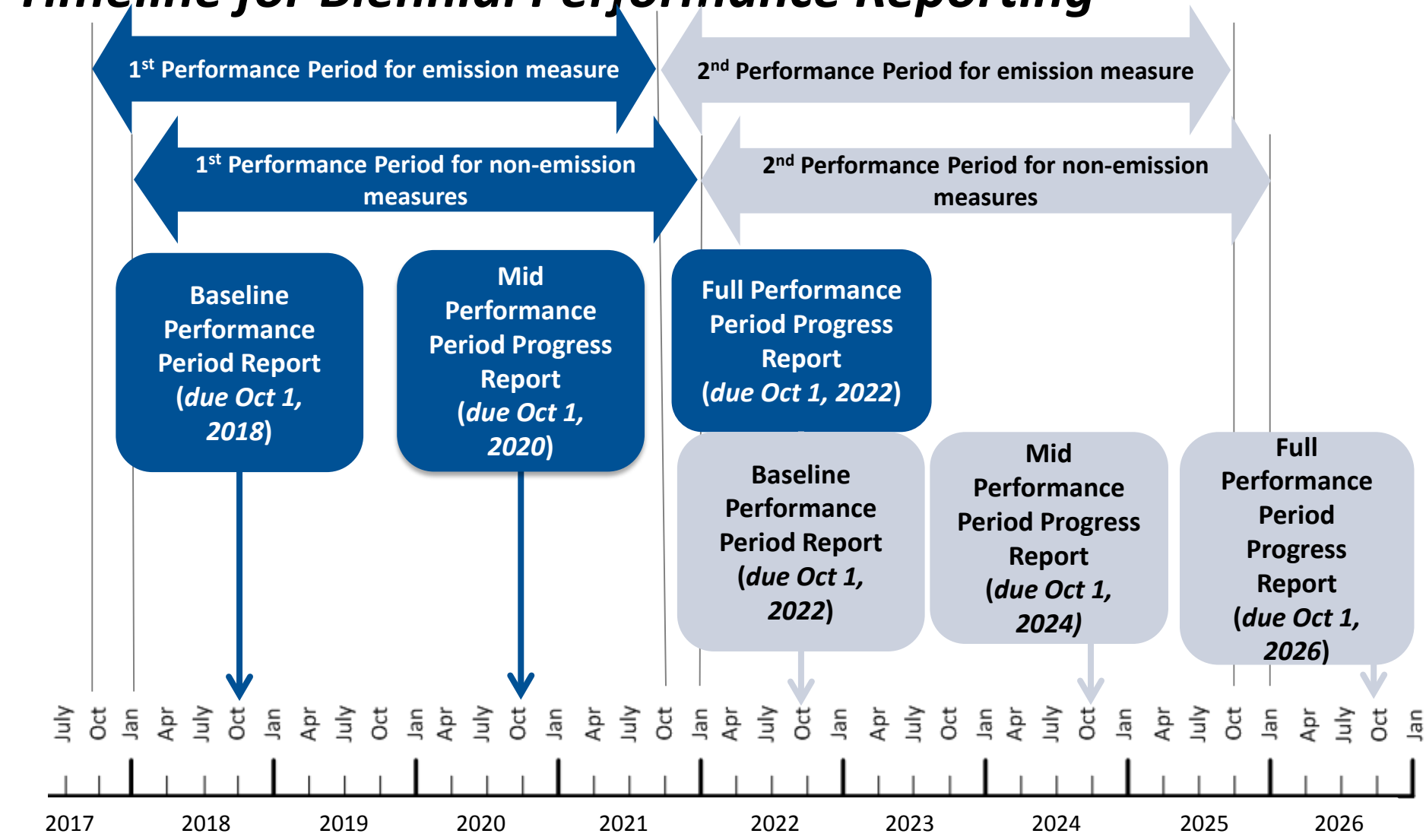
System Performance Report

- Part of MPO's Metropolitan Transportation Plan (MTP)
- Report baseline performance and progress toward achieving targets

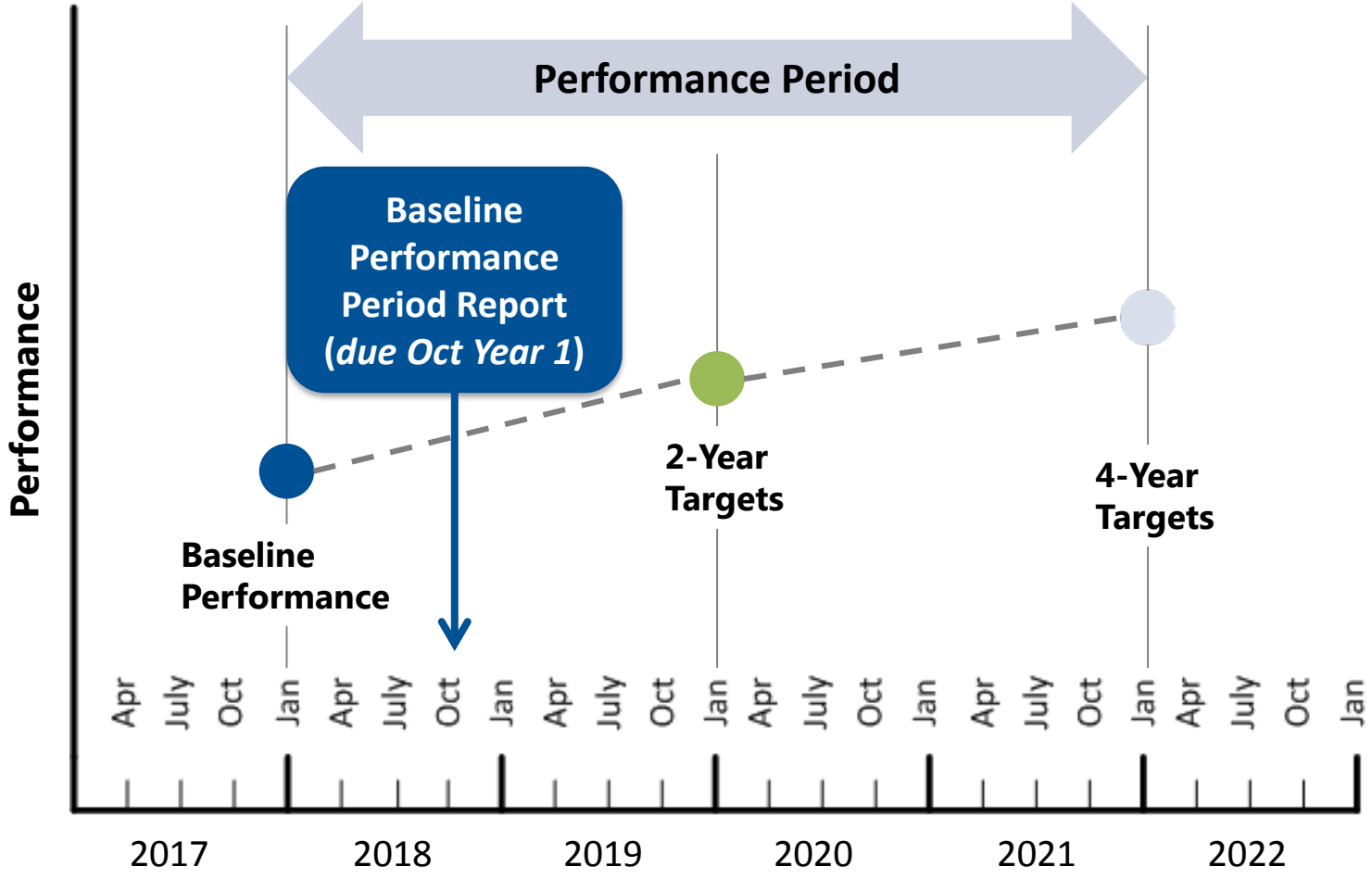
CMAQ Performance Plan

- Required for MPOs serving a TMA with a population over 1 million with ozone, CO, or PM nonattainment and maintenance areas

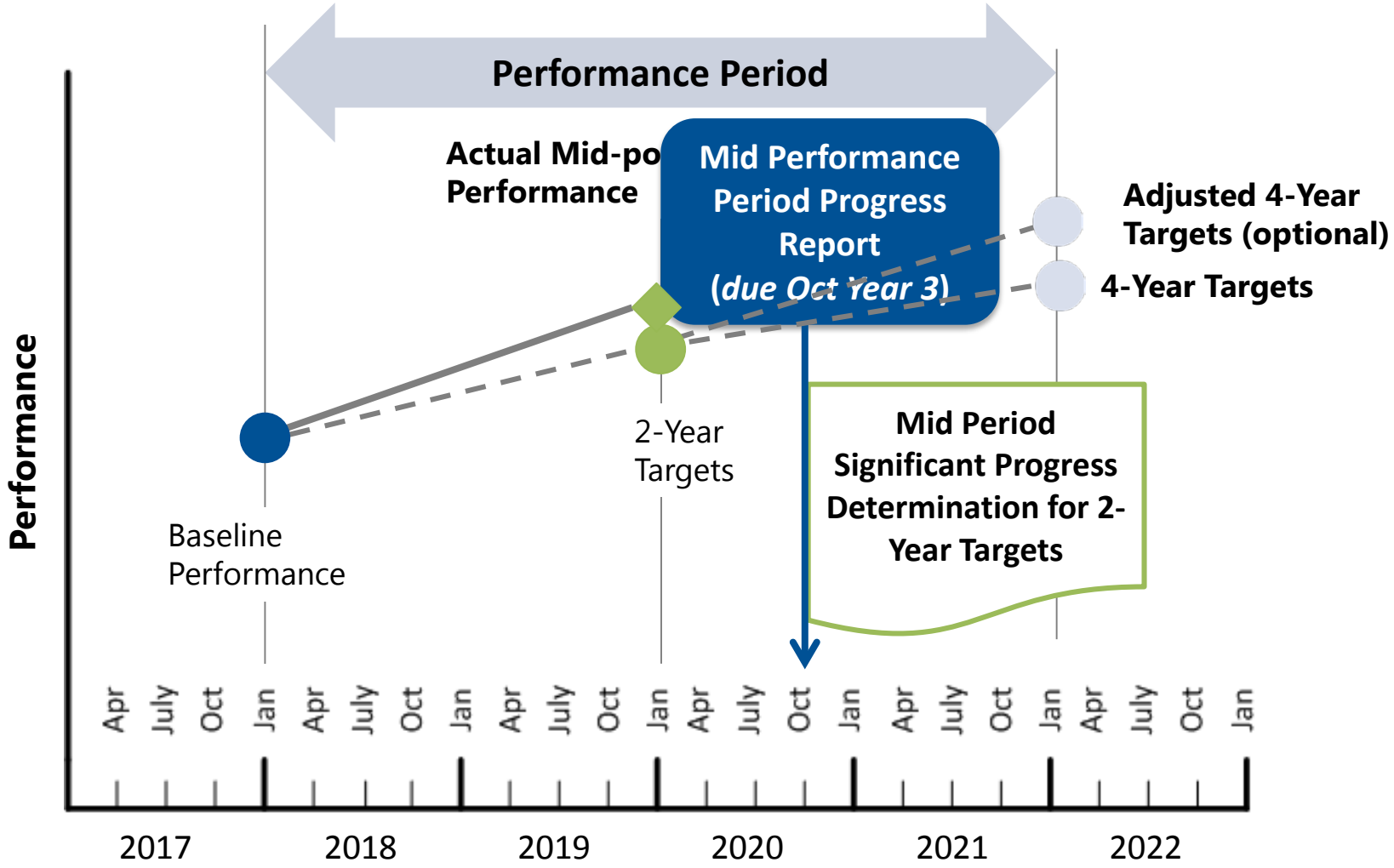
Timeline for Biennial Performance Reporting



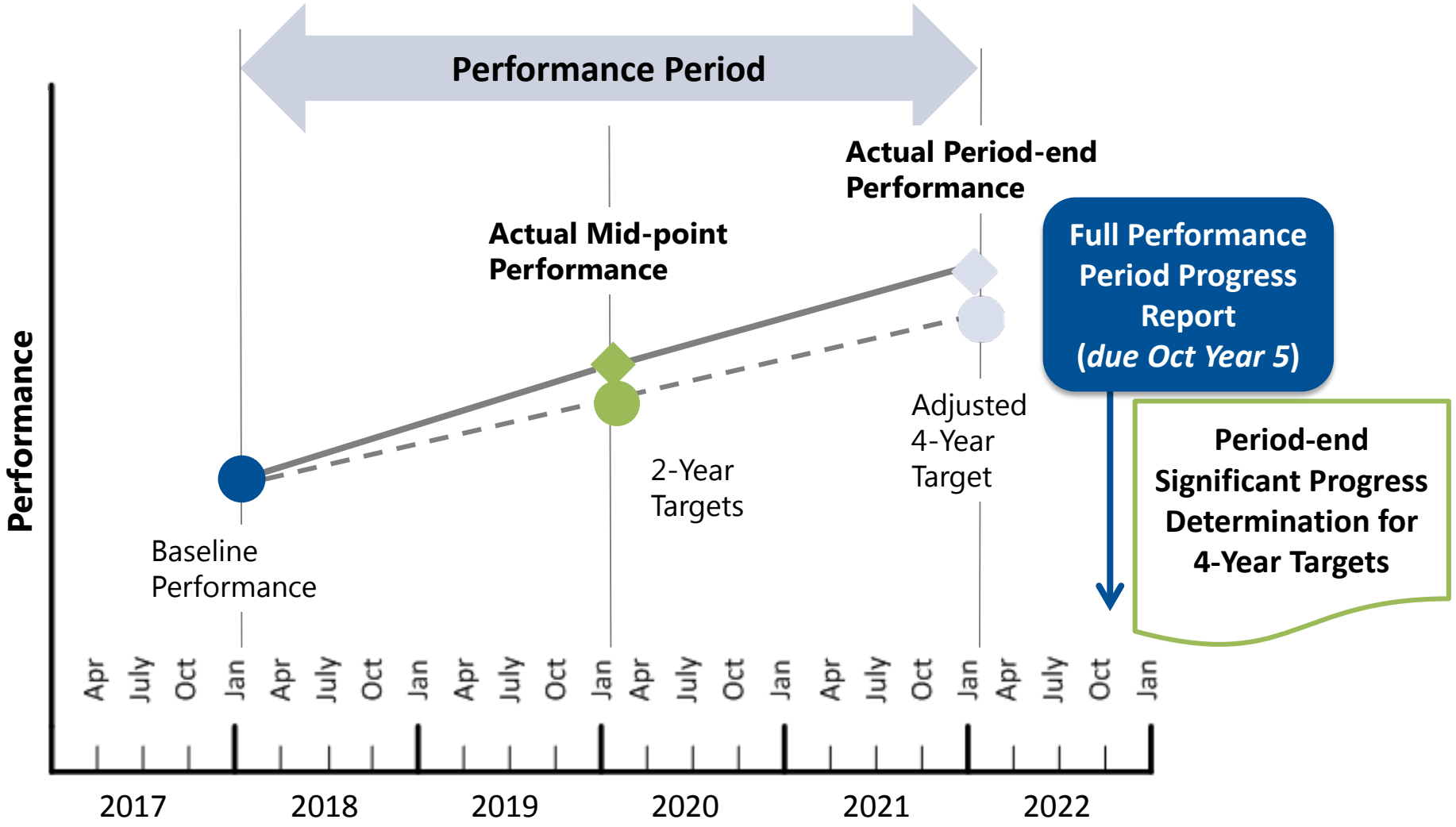
Example Targets and Target Reporting



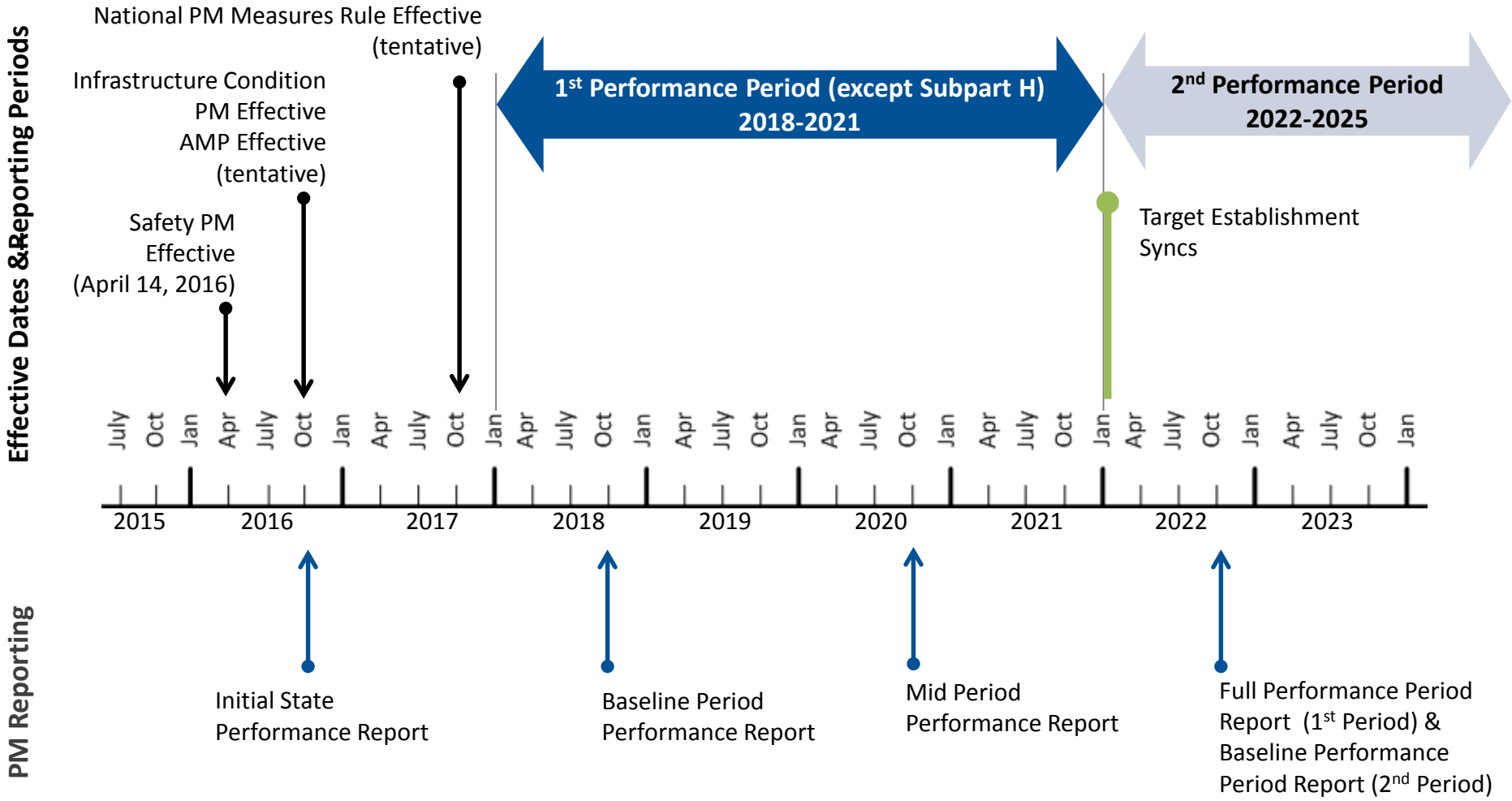
Mid Performance Period Progress Reporting



Full Performance Period Progress Reporting



Effective Dates of Performance Measures



Assessing Significant Progress

Assessing Significant Progress Toward Achieving NHPP and NHFP Targets

NPRM Subpart	Group	Proposed Measures	Significant Progress
Subpart E - Performance of the National Highway System (NHS)	**Travel Time Reliability**	Percent of the Interstate System providing for Reliable Travel Times	NHPP
		Percent of the non-Interstate NHS providing for Reliable Travel Times	NHPP
	Peak Hour Travel Time	Percent of the Interstate System where Peak Hour Travel Times meet expectations	NHPP
		Percent of non-Interstate NHS where Peak Hour Travel Times meet expectations	NHPP
Subpart F - Freight Movement on the Interstate System		Percent of the Interstate System Mileage providing for Reliable Truck Travel Times	NHFP
		Percent of the Interstate System Mileage Uncongested	NHFP

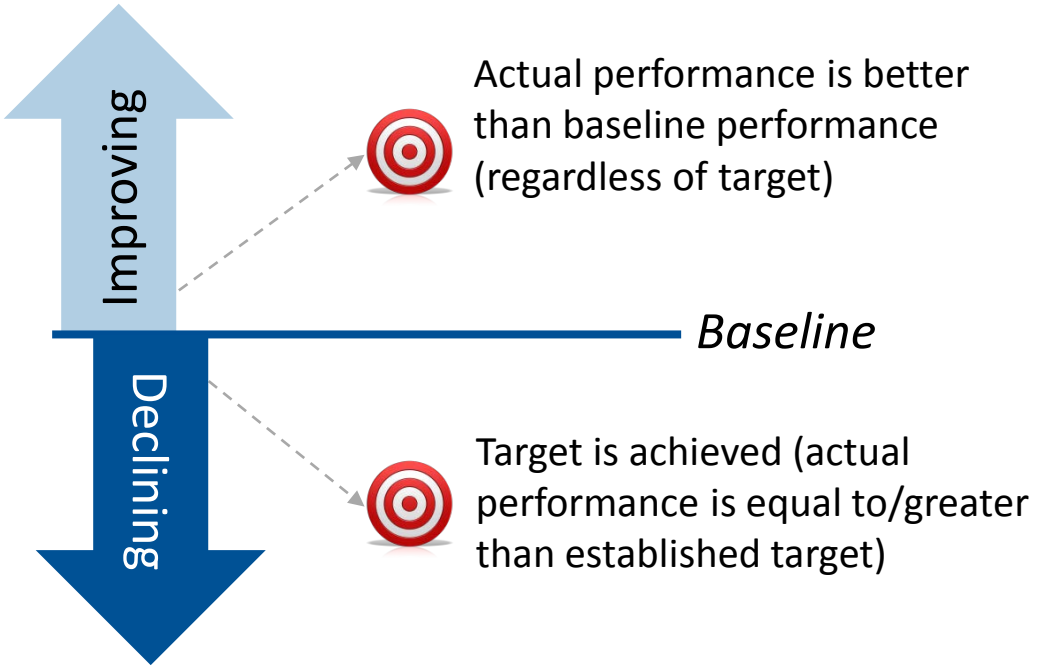
Assessing Significant Progress Toward Achieving NHPP and NHFP Targets

Who	• FHWA determines if a State DOT has made significant progress
What	• Makes determination for each NHPP & NHFP target
When	• Assesses significant progress every 2 years

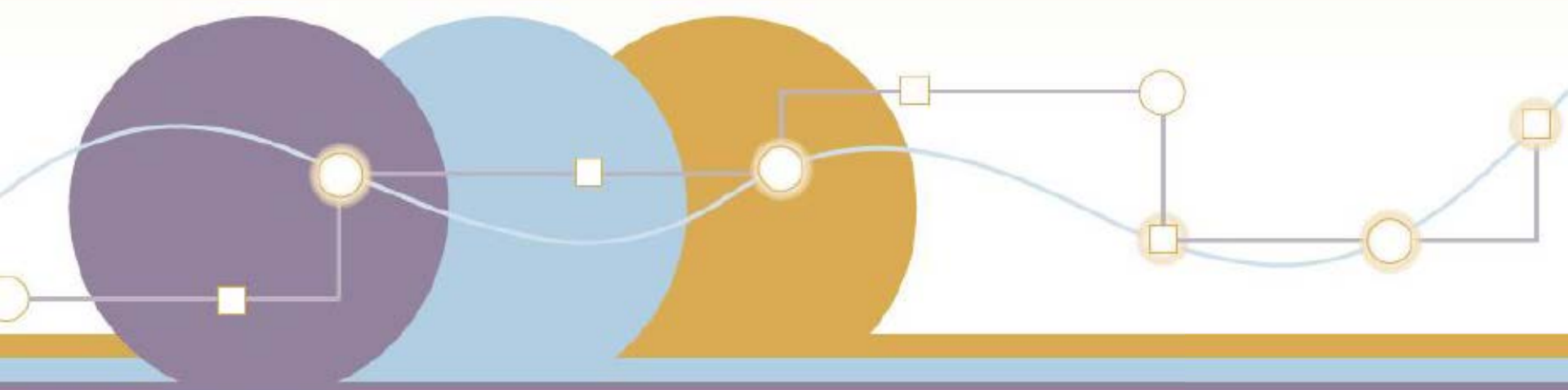
Consequence: For the NHPP and NHFP, the State DOTs are required to achieve or make significant progress toward their targets every biennial reporting period (every 2 years), and are to take additional reporting actions if FHWA determines significant progress is not made.

Assessing Significant Progress Toward Achieving NHPP and NHFP Targets

Significant progress is made when either…



Regulatory Impact Analysis (RIA)



Regulatory Impact Analysis Estimate over 11 Years (Scenario #1-FHWA Provides NPMRDS)

Increased travel time reliability on the NHS

+

Reduced time spent in congestion for commuters and freight operators

+

Reduced emissions from traffic congestion and vehicle travel

*Total Costs of Proposed Rule (undiscounted)**

Data Requirements	= $21.24 million
Reporting Requirements	= $90.53 million
Calculation of Metrics	= $27.20 million
Calculation of Measures	= $26.30 million

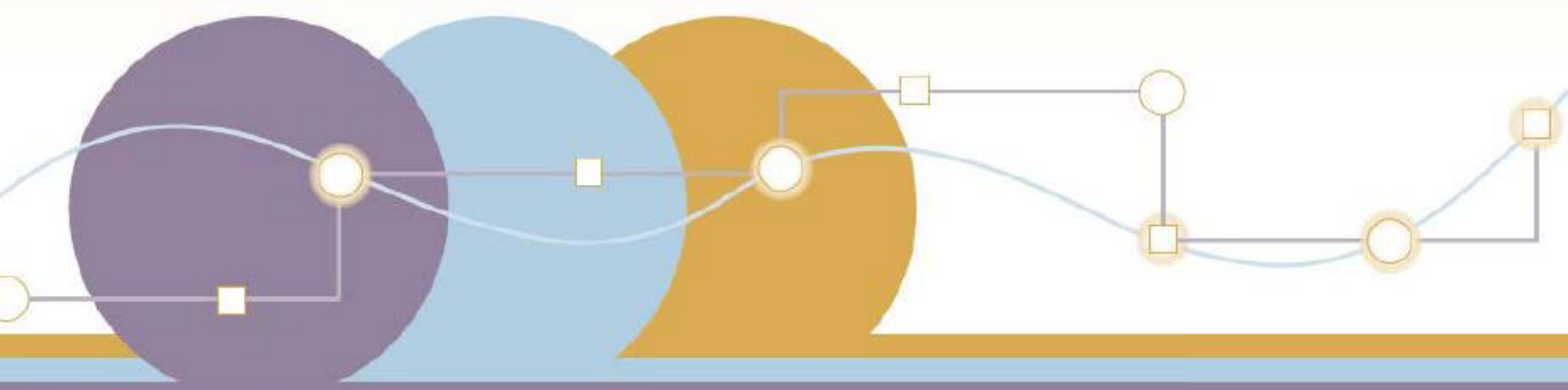
Total = $165.27 million (rounded)

Level of Change Needed to Make Costs Beneficial

Estimated Costs

**The NPRM contains a summary analysis on the change needed make the compliance costs beneficial. Refer docket for the NPRM for the detailed RIA for full details.*

One Last Thought



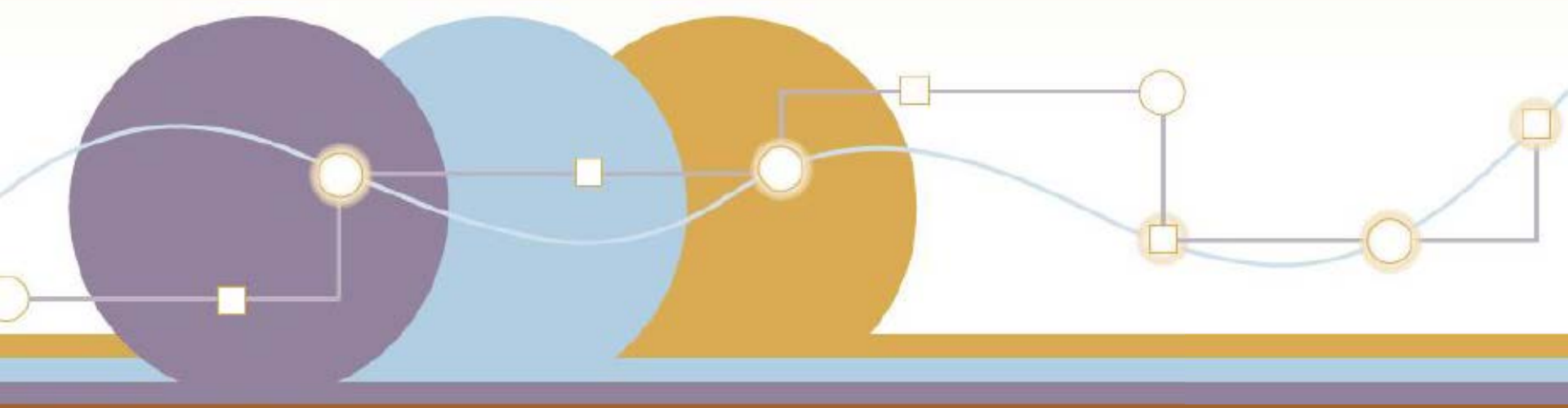
Consideration of a Greenhouse Gas (GHG) Emissions Measure

The FHWA seeks comment from the public on:

- Whether to establish a GHG emissions measure in the final rule
- If a GHG measure were to be included, FHWA believes that it would be best measured as the total annual tons of CO2 from all on-road mobile sources

Part 5

Q&A and Summary



Questions?

Rulemaking Resources

Office of TPM website: http://www.fhwa.dot.gov/tpm/

In-Depth Webinars on Proposed Measures

- 4/25: Freight Movement on the Interstate System (Subpart F) – Technical Review
- 4/26: Performance of the NHS (Subpart E)
- 5/3: CMAQ – Traffic Congestion and On-Road Mobile Emissions (Subparts G and H)
- TBD: Freight Movement on the Interstate System (Subpart F) – Industry Overview

Fact sheets, published NRPMs, webinar registration, and related information at http://www.fhwa.dot.gov/tpm/rule/pm3_nprm.cfm

Submit Comments to:

www.regulations.gov

FHWA 2013-0054

The NPRM will be published April 22, 2016

For clarifying questions or more information, please contact:

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Thank you!