Agenda Item VIII
Resolution 10-18-23

STAFF REPORT/RESOLUTION

TO: Southwest Washington Regional Transportation Council Board of Directors

FROM: Matt Ransom, Executive Director MHR

DATE: September 25, 2018

SUBJECT: **MAP-21/FAST Act Performance Measures and Target Setting for TAM, PM2 and PM3, Resolution 10-18-23**

AT A GLANCE - *ACTION*

To adopt Resolution 10-18-23 establishing RTC's Performance Measure Targets for PM2 and PM3 pavement and bridge condition, system performance and freight as established by WSDOT and to concur with targets set by C-TRAN in its Transit Asset Management Plan, in accordance with the provisions of federal transportation MAP-21 and FAST Act requirements.

INTRODUCTION

The federal transportation act, MAP-21 (2012), established performance driven transportation planning and decision making, and these provisions were carried into the current federal transportation act, the FAST Act (2015). Provisions in MAP-21 are designed to create a national performance management program for National Highway System (NHS) designated assets. Each state and Metropolitan Planning Organization (MPO) region are required to establish performance management targets within the Metropolitan Planning Area (MPA) for designated assets and monitor conditions and publish periodic reports. As envisioned, performance management is a strategic approach that uses performance data to inform decision-making and outcomes. When implemented effectively, performance management can improve project and program delivery, inform investment decisions, focus on leadership priorities, and provide greater transparency and accountability.

In MAP-21, Congress set seven national goals and charged the USDOT to use these goals to establish performance measures. The national performance goals include: safety; infrastructure condition; congestion reduction; system reliability; freight movement; economic vitality; environmental sustainability; and a reduction in project delivery delays. State DOTs responsible for the performance measures and goals have to set performance targets and develop performance plans for the targets. RTC, as the region's MPO, has a role in the target setting process. Once the Department of Transportation establishes performance targets, then the MPO needs to review the targets, set MPO targets and track programmed projects over time to make sure projects are consistent with Plans and help to make progress toward the targets and national goals.

This Resolution is focused on setting targets for Transit Asset Management (TAM), PM2 and PM3 category performance measures. At the September RTC Board meeting, the Board was provided with briefing materials giving a status report on Transportation Performance Management (TPM), specific information on pavement and bridge condition, system

performance and freight performance management requirements and reviewed the established Washington state targets for the measures. At that September 4, 2018 meeting, the Board was advised that an adopting action setting targets for PM2, PM3 and TAM performance measures would be requested at a Board meeting prior to the November 20, 2018 deadline to meet federal requirements.

SUMMARY OF PERFORMANCE MEASURES AND TARGETS:

The tables below summarize the federally established performance measures, targets established by C-TRAN, WSDOT and RTC as well as RTC recommendations for remaining targets to be adopted by the RTC as MPO for the region.

Table 1: Transit Asset Management Measures and Targets

Transit Asset Management Performance Measures and Targets		
Federal Performance Measure for Transit Asset Categories	**Targets Established in C-TRAN's TAM Plan (Oct. 2018)**	**RTC Recommendation**
Rolling Stock (vehicles – revenue and non-revenue)	80% of each vehicle class at or below Useful Life Benchmark (ULB)	Concur with C-TRAN target in TAM Plan (Oct. 2018)
Facilities (passenger stations and parking/maintenance and administrative facilities)	70% of each facility Class greater than 2.5 on Transit Economic Requirements Model (TERM) scale	Concur with C-TRAN target in TAM Plan (Oct. 2018)
Equipment	70% of each equipment class at or below Useful Life Benchmark (ULB)	Concur with C-TRAN target in TAM Plan (Oct. 2018)

Table 1 above refers to Useful Life Benchmarks (ULB). The ULB is defined as the expected life-cycle of an asset for a particular transit provider's operating environment or the timeframe when an asset is likely to deteriorate beyond the efficient cost to maintain. Table 1A below shows C-TRAN's ULB compared with the Federal Transit Administration's nationwide ULB.

Table 1A: Useful Life Benchmarks

ULB: Comparison of Replacement Schedules (in years)			
	Vehicle Types		
	Cutaway	**Van/Car**	**Bus**
C-TRAN ULB	10	7	14
FTA ULB	7	5	12

Table 2: PM 2 and PM3 Performance Measures and Targets

Performance Measure	State Current Data (Baseline)	2-yr. Target	4-yr. Target	Potential Penalty to WSDOT	RTC Recommendation
Pavement & Bridge Condition (PM2)[1]					
Pavement Condition: NHS System, Lane Miles					
% of Interstate pavement in good condition	32.5%	N/A	30%	No	RTC to support WSDOT targets rather than set regional targets
% of Interstate pavement in poor condition	3.6%	N/A	4%	Yes	
% of Non-Interstate NHS pavement in good condition	18%	45%*	18%**	No	
% of Non-Interstate NHS pavement in poor condition	5%	21%*	5%**	No	
Bridge Condition (weighted by deck area)					
% of NHS bridges in good condition,	32.8%	30%	30%	No	RTC to support WSDOT targets rather than set regional targets
% of NHS bridges in poor condition, weighted by deck area	7.8%	10%	10%	Yes	
System Performance & Freight (PM3)					
Highway System Performance (congestion)					
% of person miles traveled on the interstate system that are reliable	73%	70%	68%	No	RTC to support WSDOT targets rather than set regional targets
% of person miles traveled on the non-interstate NHS system that are reliable	77%	N/A	61%	No	
National Freight Movement Program on the Interstate System					
Truck Travel Time Reliability (TTTR)	1.63	1.70	1.75	No	RTC to support WSDOT targets rather than set regional targets
Congestion Mitigation and Air Quality Program (PM3)					
RTC is an air quality attainment area; these performance measures do not apply.					

[1] 2-yr. and 4-yr. target periods for PM2 end Oct. 1, 2020 and Oct. 1, 2022.
* IRI only
** IRI, cracking, rutting and faulting

Provided below is a status report on target setting by C-TRAN, WSDOT and RTC for TAM, PM2 and PM3 measures. The RTC Board is being asked to approve RTC supporting the targets established by C-TRAN for Transit Asset Management and is being asked to support the

WSDOT established targets for PM2 and PM3 performance measure categories. For your information, folios on the PM2 and PM3 performance measures are attached with this Memo.

TRANSIT ASSET MANAGEMENT (TAM)

The Federal Transit Administration (FTA) defines Transit Asset Management as a business model that uses the condition of assets to guide the optimal prioritization of funding to transit priorities in order to keep transit systems functioning in a State of Good Repair.

Implementation of Transit Asset Management measures required C-TRAN and RTC to coordinate and establish initial State of Good Repair (SGR) performance targets to meet the federal January 1, 2017 deadline. C-TRAN reviewed SGR initial targets with its Board on December 13, 2016 and, within the required 180 days of C-TRAN establishing targets, RTC followed up with adoption of Resolution 06-17-09 at the June 6, 2017 RTC Board meeting. At the meeting the RTC Board concurred with and adopted C-TRAN's Transit Asset Management, State of Good Repair Initial Performance Targets.

It was acknowledged by the FTA that transit agencies had not had sufficient time to gather all supporting data when setting initial targets. Transit agencies were therefore tasked with completing a full TAM Plan to address targets for equipment, rolling stock and facilities by October 1, 2018. The C-TRAN Board of Directors approved C-TRAN's TAM Plan at its September 11, 2018 Board meeting.

The RTC Board of Directors is asked to concur with targets for equipment, rolling stock and facilities as set in C-TRAN's TAM Plan (October 2018) and as outlined in Tables 1 and 1A of this Resolution.

Targets must be reviewed and set every fiscal year and the TAM Plan must be updated in its entirety at least every 4 years covering a horizon period of at least 4 years.

The TAM Plan's performance measures and targets must be reflected in any Regional Transportation Plan or Transportation Improvement Program adopted by RTC, as the Metropolitan Planning Organization (MPO) for the region, on or after October 1, 2018.

PM2 and PM3 PERFORMANCE MEASURES AND TARGETS

WSDOT established performance targets for PM2, Pavement and Bridge Condition, and PM3, System Performance and Freight Performance, on May 20, 2018. MPOs have up to 180 days to either set their own quantifiable targets or to adopt state targets and support the state in attaining these targets. By November 20, 2018, the RTC Board needs to take action to adopt PM2 and PM3 targets or support attaining the WSDOT targets.

PM2 – PAVEMENT AND BRIDGE CONDITION PERFORMANCE MEASURES AND TARGET SETTING

- **Pavement Condition**

The attached folio MAP-21 & Pavement Washington State (WSDOT, May 2018 – Edition 3) provides background information on assessing pavement conditions, collecting pavement data and reporting on pavement conditions. The folio also documents interstate and non-interstate National Highway System (NHS) pavement condition as of May 2018 as well as the WSDOT established 2-year and 4-year targets for pavement performance measures.

- **Bridge Condition**

The attached folio MAP-21 & Bridges Washington State (WSDOT, May 2018 – Edition 3) provides background information on Washington National Highway System (NHS) bridge inventory and conditions, reporting on NHS bridge conditions and bridge data collection. The folio also documents the percent of NHS bridges classified in poor condition and in good condition as of May 2018 as well as the WSDOT established 2-year and 4-year percentage targets for bridges in poor and good condition.

PM3– SYSTEM PERFORMANCE AND FREIGHT PERFORMANCE MEASURES: TARGET SETTING

The attached folio MAP-21 & System Performance Washington State (WSDOT, May 2018 – Edition 3) provides information on how FHWA measures system performance, freight movement, congestion mitigation, and air quality in addition to a description of the WSDOT and MPO collaboration and decision making process for PM3 target setting. The folio also documents the PM3 required performance measures reporting on current data as well as the WSDOT established 2-year and 4-year targets.

The RTC Board is asked to support the targets already established by WSDOT for PM2 and PM3 performance measures.

RTAC RECOMMENDATION TO THE RTC BOARD

At the September 21 meeting, RTAC members acted to recommend RTC Board adoption of C-TRAN's Transit Asset Management targets and to agree to help support WSDOT attaining PM2 and PM3 performance measures targets as established by WSDOT in May 2018.

Supporting WSDOT statewide established targets for PM2 and PM3 performance measures is recommended for several reasons: 1) WSDOT and the Washington state MPOs have worked in close coordination in establishing the first round of performance targets, 2) FHWA and WSDOT are agreeable to the strategy of having MPOs support WSDOT targets, 3) this is a new process; as we learn more and can rely on more data to inform the process, RTC is able to establish its own quantitative regional targets if this is found to be preferable, 4) supporting WSDOT targets

will not have a funding impact for RTC, and 5) RTC is required to address performance targets for TAM and Safety (PM1) in TIP and RTP updates after October 1, 2018.

POLICY IMPLICATION

Final rules governing PM2 and PM3 category performance measures for pavement and bridge condition, system performance and freight became effective on May 20, 2017, requiring State DOTs to set performance targets by May 20, 2018 with MPOs having to set targets 180 days after the State but no later than November 20, 2018. WSDOT adopted state targets for PM2 and PM3 performance measure categories on May 20, 2018.

RTC will eventually need to integrate the MPO's performance targets for PM2 and PM3 into the Regional Transportation Plan and Transportation Improvement Program. WSDOT is required to regularly report to FHWA and update targets, as necessary. Annual briefings regarding Washington State's progress in addressing the targets will be provided to the Board. FHWA will determine whether WSDOT is making progress toward achieving its initial targets as well as subsequent targets. Washington MPOs are not exposed to penalties using the target-setting approach used by WSDOT.

BUDGET IMPLICATION

There is no direct budget impact to RTC. RTC will use performance management data and information to guide decision-making on how to invest transportation funds for needed transportation projects, infrastructure and assets in the long-range Regional Transportation Plan and in the regional Transportation Improvement Program (TIP).

ACTION REQUESTED

Adoption of Resolution 10-18-23, will establish RTC's MAP-21/FAST Act Performance Measure Targets for TAM, PM2 and PM3.

ADOPTED this 2nd day of October 2018, by the Southwest Washington Regional Transportation Council.

SOUTHWEST WASHINGTON
REGIONAL TRANSPORTATION COUNCIL

ATTEST:

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Ron Onslow
Chair of the Board

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Matt Ransom
Executive Director

Attachments:

1. MAP-21 & Pavement Washington State (WSDOT, May 2018 – Edition 3)
2. MAP-21 & Bridges Washington State (WSDOT, May 2018 – Edition 3)
3. MAP-21 & System Performance Washington State (WSDOT, May 2018 – Edition 3)

Washington State Department of Transportation

May 2018 – Edition 3

WSDOT establishes MAP-21 pavement performance targets

The Federal Highway Administration (FHWA) published in the Federal Register (82 FR 5886) a final rule establishing performance measures for State Departments of Transportation (DOTs) to use in managing pavement and bridge performance on the National Highway System (NHS). The National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program Final Rule addresses requirements established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reflects passage of the Fixing America's Surface Transportation (FAST) Act. The rule was effective May 20, 2017.

Targets established May 20, 2018

WSDOT has been proactive in working with MPOs and local agencies with regard to the implementation of federal pavement performance measures for the NHS. Collaborative efforts to establish targets by May 20, 2018, included meetings with all MPO directors and WSDOT representatives; responsible for helping make policy, process, data and advisory target setting decisions as well as in-depth discussions between subject matter experts; responsible for better understanding final federal rule requirements and their implications.

The latest data available for Interstate pavement in Washington is from the 2015 and 2016 data collection period. In Washington, 32.5% of interstate pavement is in good condition and 3.6% is in poor condition (using FHWA criteria). Non-interstate NHS pavement is 18% in good condition and 5% in poor condition. This condition data addresses motor vehicle travel lanes only, not shoulders that serve as elements of the active transportation network.

FHWA has confirmed pavement targets should be based on expected performance with available funding. The targets are not meant to be aspirational values or goals related to desired funding. An evaluation of pavement data collected from the NHS resulted in the targets for pavement performance (see below). WSDOT's experience has proven that pavement condition indexes calculated over an entire network do not change rapidly, especially in the short-term. The 2- and 4-year targets are based on current conditions. As stated within the final rule, the 2-year (2020) target is expressed using International Roughness Index (IRI) only. The 4-year (2022) target is expressed using all criteria (see page 2 for details).

Meeting the additional requirement

A separate requirement determined by FHWA is that the percent of Interstate pavement in poor condition cannot exceed 5%. This performance criterion is a special requirement mandated by Congress, and is the only pavement performance measure that results in a funding penalty if it is not met. The penalty requires the State to obligate a specified percentage of its National Highway Performance Program (NHPP) and Surface Transportation Program (STP) funds to correct the Interstate pavement conditions until the minimum threshold is met (see p. 4 for more details).

In the short term, an investigation of currently programmed projects shows that projects in the construction plan for 2017-2020 will improve the condition of about 70% of the concrete lane-miles currently in poor condition. This will ensure the FHWA threshold of 5% of Interstate pavement in poor condition is not reached, and the expected percentage of poor pavement should be less than 3% in 2020. Given the long-term status of aging concrete pavement, 4% is a reasonable target for the percentage of Interstate pavement in percent poor condition in 2022.

The combination of asphalt and concrete renewal expected in the future should leave the percent good in relatively stable condition, and a reasonable target for interstate percent good is 30%.

MAP-21 performance measures by program area	Current data	2-year target[1]	4-year target[1]	Penalty
Pavement (PM2) 23 CFR Part 490 ID No. 2125-AF53				
Percent of Interstate pavement on the NHS in good condition	32.5%	N/A	30%	No
Percent of Interstate pavement on the NHS in poor condition	3.6%	N/A	4%	Yes
Percent of non-Interstate pavement on the NHS in good condition	18%	45%	18%	No
Percent of non-Interstate pavement on the NHS in poor condition	5%	21%	5%	No

Notes: During the phase-in of MAP-21 requirements, only the first two-year target uses IRI only. MPOs do not report two-year targets. "Current data" is relative to the four-year targets only.
1 Two-year and four-year target periods for PM2 end October 1, 2020, and October 1, 2022.

Washington National Highway System pavement inventory and conditions

Washington's National Highway System (NHS) consists of 14,789 lane miles of pavement, 77 percent of which is managed by WSDOT. The remaining 23 percent of NHS pavement is managed by local agencies. The total NHS lane miles include 4,026 lane miles of Interstate pavements that are managed by WSDOT (see charts at right).

Assessing pavement conditions

The MAP-21 rules assess pavement conditions based on International Roughness Index (IRI), cracking, rutting (for asphalt pavements) and faulting (for jointed concrete pavements). The table below shows the thresholds for determining whether pavement segments of 0.1 mile are in good, fair, or poor condition based on these metrics.

For asphalt and jointed concrete pavements, a 0.1 mile segment is considered in good condition if all three metrics are rated as good; it is considered poor if two or more metrics are rated as poor. To calculate the percent of the system in good or poor condition, the conditions for the 0.1 mile segments are rolled up for the entire state. These pavement measure calculations are summarized in the table below.

Definitions and criteria for good, fair and poor conditions[1]

	Asphalt	Concrete	Good	Fair	Poor
International Roughness Index (IRI) (inches/mile)	✓	✓	< 95	95 - 170	> 170
Cracking (%)	✓	✓	< 5	CRCP: 5 - 10 Jointed: 5-15 Asphalt: 5-20	> 10 > 15 > 20
Rutting (inches)	✓		< 0.20	0.20 - 0.40	> 0.40
Faulting (inches)		✓	< 0.10	0.10 - 0.15	> 0.15
Present Serviceability Rating (PSR[2]) (0.0-5.0 value)	✓	✓	<4.0	2.0-4.0	<2.0

Data source: Federal Highway Administration.
Note: 1 To be poor, at least two criteria must be poor. To be good, all three criteria must be good, everything else is fair. 2 PSR is a composite of cracking and rutting and may only be used on routes with posted speed limits under 40 mph.

Washington state National Highway System (NHS) pavement inventory
As of December 2016; MAP-21 requirements pertain to NHS lanes only

	All public roads – total lane miles NHS and non-NHS	National Highway System – total lane miles[1]	Interstate – total lane miles
State-owned	18,715	11,452	4,026
Locally-owned	148,529	3,337	
Total	167,244	14,789	4,026

Data source: WSDOT Pavement Office.
Note: 1 Includes Interstate lane miles.

Collecting pavement data for MAP-21

WSDOT surveys all NHS routes as part of the HPMS reporting process, which has been in place for many years. This means that IRI, rutting and faulting information collected is already compliant. One change will be to submit rutting and faulting into the HPMS for all sections as opposed to just the HPMS sample sections, the current standard. Submitting rutting and faulting data for the full extent of the NHS will not pose an issue for WSDOT.

One challenge with the final rules is cracking data, which has not previously been fully collected for locally-managed NHS roads. However, WSDOT has worked with MPOs and confirmed collection methodology consistent with the MAP-21 Final rules.

Reporting on pavement conditions

States currently report on pavement conditions to FHWA through HPMS, which will continue under MAP-21. At present, states report International Roughness Index (IRI) data annually for the entire NHS by June 15, and report cracking, rutting and faulting metrics biennially for sample sections of pavement on the NHS. Beginning April 15, 2019, and each April 15 thereafter, state DOT's will submit Interstate data that conforms to the final rules.

The final MAP-21 rules would require reporting IRI, cracking, rutting and faulting on the full extent of Interstate pavements annually. For non-Interstate NHS pavements, these four metrics would be reported in HPMS biennially for the full extent of the system. However, the requirement for cracking, rutting, and faulting data for non-Interstate NHS roads is phased-in and not required until October 1, 2022 reporting year. The final rule reporting requirements are summarized in the tables at right.

Reports are structured on a 4-year reporting cycle, with midpoint (2- year) reports. Between October 2018 and October 2022, state DOTs will be required to submit three performance reports to FHWA:

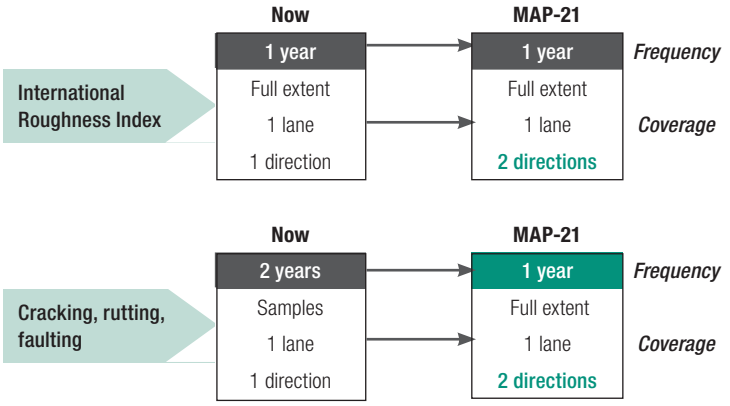
Baseline Performance Report: In this report, states must establish 2-year and 4-year targets, describe baseline conditions, urbanized area boundaries and population data, NHS limits, and relationships with other performance expectations.

- This report will include HPMS data collected in 2016 and 2017. States will be able to adjust the 4-year targets in the Mid Performance Progress Report based on data collected in 2018 and 2019.
- To allow for the phasing in of new reporting requirements for Interstate pavement conditions, states are only required to establish 4-year targets for Interstate pavements in the Baseline Performance Report that is due October 1, 2018. Both 2-year and 4-year targets are required for non-Interstate NHS pavements.

Mid Performance Progress Report: States must report on 2-year conditions and performance, investment strategy effectiveness and discuss progress in achieving targets. States have the option to adjust 4-year targets at this time. In this report, states may include a discussion of target achievement and extenuating circumstances.

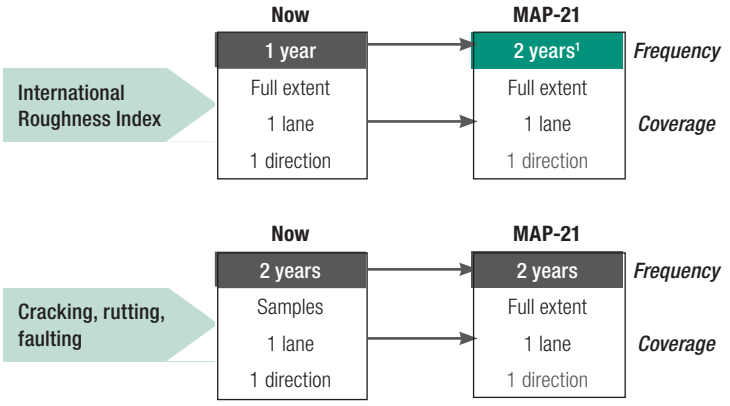
- Because states are not required to establish 2-year targets for Interstate pavements in the Baseline Performance Report, they would use the Mid Performance Progress Report to update baseline condition/performance data and, if necessary, adjust the 4-year targets.

Reporting requirements – Interstate pavements



Data source: Federal Highway Administration.

Reporting requirements – non-Interstate NHS pavements



Data source: Federal Highway Administration.
Note: 1 Beginning collection in 2020/2021 and reported in 2022.

Full Performance Progress Report: This report includes the same content as the Mid Performance Period Progress Report, but reports on the 4-year targets. If a state has not made significant progress for achieving the NHPP targets in two consecutive biennial determinations, then the state DOT will include a description of the actions they will undertake to better achieve the NHPP targets in the next performance period. Even though significant progress is assessed for all four pavement performance measures, pavement condition penalties only apply for Interstate pavements.

- As part of the Full Performance Progress Report, MPOs will report targets and progress toward the achievement of targets. MPOs will report their established targets, performance, progress, and achievement of the targets to their respective state DOT in a manner that is agreed upon by both parties and documented in the Metropolitan Planning Agreement.

Interstate minimum condition requirements

For a minimum condition level, MAP-21 states that no more than 5 percent of the Interstate system lane-miles be in poor condition. The FHWA will assess if a state DOT has maintained this minimum condition level after the first full year of data collection and annually thereafter. Therefore, the first determination would be made in 2019, after a full year of data collection in 2018. The FHWA expects to reassess this minimum condition level after the completion of the first full performance period (reported in 2022) to determine if additional system improvements can be achieved through adjustments to the required minimum condition level.

Penalties

A state will be penalized if it does not meet the Interstate pavement minimum condition requirement. The FHWA will notify state DOTs annually of their compliance status with regard to the minimum condition requirement prior to October 1 of the year in which the determination is made. If the minimum condition level is not met, the state must obligate National Highway Performance Program (NHPP) and transfer Surface Transportation Program (STP) funds. Specifically, if the state is out of compliance, they would be required to obligate the following:

- From the amount apportioned to the State for the NHPP, an amount that is not less than the Interstate Maintenance apportionment for fiscal year 2009 plus 2 percent per year compounded annually for the five additional fiscal years after 2013.
- For apportioned transfer Surface Transportation Program funds, an amount equal to 10 percent of Interstate Maintenance apportionment for fiscal year 2009.

These funds would need to be used to improve Interstate pavement conditions (as provided under the pre-MAP-21 Interstate Maintenance Program). This requirement will remain in effect until the Interstate system pavement condition exceeds the minimum condition level.

What is the current distribution of funds?

Pavement: The Surface Transportation Program (STP) is the most flexible FHWA funding program and the one that provides the most financial support to local agencies. This program allocates more than $90 million dollars per year from FHWA through WSDOT to local agencies. MPOs, Regional Transportation Planning Organizations and County lead agencies prioritize and select projects based on their regional priorities.

For more information

Pavement condition data: Pat Whittaker, HPMS/Functional Class Manager of WSDOT's Transportation Data & GIS Office, at (360) 570-2370 or WhittaP@wsdot.wa.gov.
Pavement condition information: Dave Luhr, WSDOT State Pavement Management Engineer, at (360) 709-5405 or LuhrD@wsdot.wa.gov.

Available Data

- Pavement condition assessment report of the National Highway System (NHS)

Pavement condition:

- International Roughness Index (IRI) data for the full extent of state highway NHS and local roads
- Rutting data for state highway NHS roads and select sample segments for local NHS roads
- Concrete faulting data for state highway NHS roads and select sample segments for local NHS roads
- Cracking data for state highway NHS roads and select sample segments for local NHS roads

Pavement inventory:

- Number of lanes for the full extent of principal arterials and NHS
- Bridge location for the full extent of principal arterials and NHS
- Roadway surface type (by various types of asphalt or concrete) for the full extent of state highway NHS and by sample segments for local NHS roads

Note: Data is available for county and city levels and can be provided by the MPO boundaries.

Purpose of reporting requirements

In July 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) became law. Included in the law was a Declaration of Policy: "Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds …."

The primary objectives of MAP-21 are to increase the transparency and accountability of states for their investment of federal taxpayer dollars into transportation infrastructure and services nationwide, and to ensure that states invest money in transportation projects that collectively make progress toward the achievement of national goals. The new rules will require reporting performance on the following areas: Safety; Pavement and Bridge; System Performance/Congestion; Freight, and Congestion Mitigation and Air Quality (CMAQ).

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For information contact (360) 705-7955 or OSAPA@wsdot.wa.gov

WSDOT establishes MAP-21 bridge performance targets

The Federal Highway Administration (FHWA) published in the Federal Register (82 FR 5886) a final rule establishing performance measures for State Departments of Transportation (DOTs) to use in managing pavement and bridge performance on the National Highway System (NHS). The National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program Final Rule addresses requirements established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reflects passage of the Fixing America's Surface Transportation (FAST) Act. The rule was effective May 20, 2017.

Targets established May 20, 2018

WSDOT has been proactive in working with MPOs and local agencies with regard to the implementation of federal pavement performance measures for the NHS. Collaborative efforts to establish targets by May 20, 2018, included meetings with all MPO directors and WSDOT representatives; responsible for helping make policy, process, data and advisory target setting decisions as well as in-depth discussions between subject matter experts; responsible for better understanding final federal rule requirements and their implications.

FHWA has set the upper limit for the percentage of all NHS bridges classified in poor condition at 10%. Based on analysis and past trends, 10% is the recommended target. The FHWA did not set a limit for the percentage of NHS bridges classified as being in good condition; it is recommended to adopt a target of 30% based on a thorough review of current bridge conditions (see chart below).

The condition of individual bridge elements (deck, superstructure, substructure), and culverts (which are measured separately), are rated using a classification method from the National Bridge Inventory (NBI) and the Highway Bridge Program. This classification method assigns the elements and culverts condition ratings ranging from 1 to 9 where 7 or greater = good; 5-6 = fair; and 4 or less = poor.

For MAP-21 and continued in the FAST Act, bridges in good condition have all three elements (deck, superstructure, substructure) rated as 7 or higher); bridges in fair condition meet the minimum threshold of 5 or higher; and poor bridges have any of the elements rated as 4 or lower (see p. 2).

The percentage of the total NHS bridge deck area for each classification (good, fair, poor) is calculated as the ratio of the total deck area of NHS bridges in a classification to the total deck area of NHS bridges in the state. The bridge deck condition of a shoulder on a bridge is included in the overall condition rating; it is not tracked or rated for active transportation use separate from the overall bridge deck condition. Sidewalk elements are defined and condition rated but these data are not reported here.

A separate requirement determined by FHWA is that the percent of NHS bridges in poor condition cannot exceed 10%. This performance criterion is a special requirement mandated by Congress, and is the only bridge performance measure that results in a funding penalty if it is not met. The penalty requires the State to obligate a specified percentage of its National Highway Performance Program (NHPP) funds to correct the NHS bridge conditions until the minimum threshold is met (see p. 4 for more details).

MAP-21 performance measures by program area	Current data	2-year target[1]	4-year target[1]	Penalty
Bridges (PM2) 23 CFR Part 490 ID No. 2125-AF53				
Percent of NHS bridges classified in poor condition (weighted by deck area)	7.8%	10%	10%	Yes
Percent of NHS bridges classified in good condition (weighted by deck area)	32.8%	30%	30%	No

Notes: Federal rule allows state and MPOs to adjust four-year targets during the mid-performance progress report. **1** Two year and four year targets for PM2 are due October 1, 2020, and October 1, 2022.

Washington National Highway System bridge inventory and conditions

Washington's National Highway System includes 2,476 bridges, 90.9 percent of which are managed by WSDOT. The remaining 9.1 percent (204 bridges) are owned and managed by local agencies.

As of June 2017, 4.3 million square feet of the deck area of NHS bridges were in poor condition statewide (see table at right). WSDOT-owned bridges made up 4.0 million square feet of this while locally-owned brides comprised 0.3 million. In total, it amounts to 8.6 percent of the NHS system.

Washington state bridge system inventory
As of June 2017; MAP-21 requirements pertain to NHS bridges only

	All bridges – statewide NHS and non-NHS	National Highway System – (NHS) bridges
State-owned	3,312	2,272
Locally-owned	4,061	204
Total	7,373	2,476

Data source: WSDOT Bridges & Structures Office.

Assessing bridge conditions

The MAP-21 rules state that bridge condition be determined based on an assessment of the deck, superstructure and substructure. Culverts are also included and are only rated based on one item. The method for classification would be the same method currently used under the Highway Bridge Program, as shown in the table at right.

Condition ratings for bridges on the National Highway System
As of June 2017; Deck area in millions of square feet

	Deck area	Number of bridges
WSDOT-owned	45.1	2,272
Amount SD (%)	4.0 (8.9%)	106
Locally-owned	4.5	204
Amount SD (%)	0.3 (5.7%)	23
Total	**49.7**	**2,476**
Amount SD (%)	4.3 (8.6%)	129

Data source: WSDOT Bridge & Structures Office.
Notes: Structurally deficient (SD) is equal to the state's poor condition rating; for locally-owned bridges, SD also includes load-restricted bridges, even if those bridges are in fair or better condition. Locally-owned refers to bridges owned by cities and counties.

National Bridge Inventory (NBI) condition rating thresholds for National Highway System bridges

	9 - 8 - 7 Good	6 - 5 Fair	4 - 3 - 2 - 1 - 0 Poor
Deck	≥ 7	5 or 6	≤ 4
Superstructure	≥ 7	5 or 6	≤ 4
Substructure	≥ 7	5 or 6	≤ 4
Culvert	≥ 7	5 or 6	≤ 4

Data source: Federal Highway Administration.

Bridge condition assessment based on minimum values

The FHWA states that for each applicable bridge, the performance measures for determining condition be based on the minimum values for deck, superstructure, substructure and culverts. The FHWA and MAP-21 process will weight this condition by the respective deck area of each bridge and express condition totals as a percentage of the total deck area of bridges in a state. This method for calculating bridge condition is illustrated below.

Calculating NHS bridge condition performance measures

	Structure Type: Bridges	Structure Type: Culverts	
Overall bridge condition rating	3 metric classification (Deck, Superstructure, Substructure)	1 metric classification (Culverts)	Measures
Good	All metrics rated "good"	Metric rated "good"	Percentage of deck area classified in good condition
Poor	Any metrics rated "poor"	Metric rated "poor"	Percentage of deck area classified in poor condition
Fair	Minimum rated metric "fair"	Metric rated "fair"	

Data source: Federal Highway Administration.

The percentage of total NHS bridge deck area for each classification (good, fair and poor) would be calculated as the ratio of the total deck area of NHS bridges in a classification to the total deck area of NHS bridges in the state:

$$\% \text{ of NHS bridges in good condition} = 100.0 * \frac{\text{Total deck area of NHS bridges in good condition}}{\text{Total deck area of NHS bridges in a state}}$$

$$\% \text{ of NHS bridges in poor condition} = 100.0 * \frac{\text{Total deck area of NHS bridges in poor condition}}{\text{Total deck area of NHS bridges in a state}}$$

Reporting on National Highway System bridge conditions

For the Baseline Performance Report, states will be required to collect annual condition data of the superstructure, substructure, deck area and culverts for the National Bridge Inventory (NBI). The existing NBI data from 2013, 2014 and 2015 will be used for the baseline report. WSDOT currently collects and reports on this data, so this will not be a change. The Mid Performance Period Report will cover NBI data for 2016-2017, and the Full Performance Period Report will include 2018-2019.

The FHWA requires that state DOTs coordinate with all relevant bridge owners, such as federal agencies that own NHS bridges and other state DOTs that share NHS bridges that cross state borders, in order to meet the requirements and to ensure consistency. This differs from certain established requirements of the National Bridge Inspection Standards (NBIS), such as the NBI data submittal process under which states are not responsible for federally- or tribally-owned bridges.

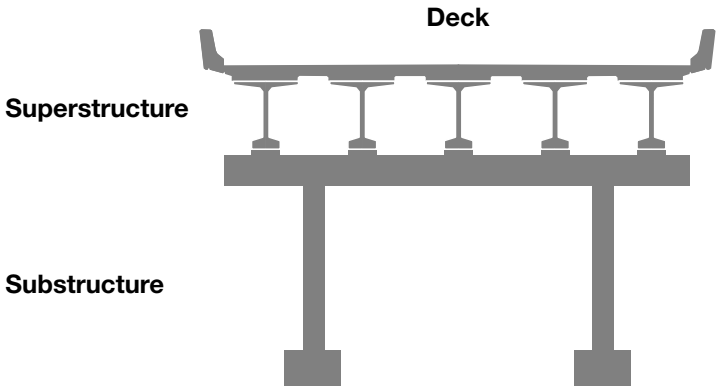
The FHWA will make minimum condition level determinations annually based on data finalized in the NBI as of June 15. The FHWA requires state DOTs submit their most current NBI data on highway bridges to FHWA no later than March 15 annually (up from the current deadline of April 1). State DOTs will have 90 days after submitting their inventory to the NBI to conduct data checks to ensure quality and completeness. The FHWA will make its compliance determination and notify all state DOTs of its findings prior to October 1 of the year in which the determination was made.

Reports are structured by a 4-year reporting cycle, with midpoint (2-year) reports. Between October 2016 and October 2020, state DOTs will be required to submit three performance reports to FHWA:

- Baseline Performance Report: In this report, states must establish 2-year and 4-year targets, describe baseline conditions, urbanized area boundaries and population data, NHS limits, and relationship with other performance expectations.
- Mid Performance Period Progress Report: States must report on 2-year conditions and performance, investment strategy effectiveness and discuss progress in achieving targets. States have the option to adjust 4-year targets at this time. In this report, states can also include a discussion of target achievement and extenuating circumstances.
- Full Performance Period Progress Report: This report includes the same content as the Mid Performance Period Progress Report, but reports on the 4-year targets. If a state has not made significant progress toward achieving the NHPP targets in two consecutive biennial determinations, then the state DOT must include a description of the actions they will undertake to better achieve the targets in the next performance period.

As part of the Full Performance Period Progress Report, MPOs will report targets and progress toward the achievement of targets. They will report their established targets, performance, progress, and achievement of the targets to their respective state DOT in a manner that is agreed upon by both parties and documented in the Metropolitan Planning Agreement.

Anatomy of a bridge



For MAP-21's Baseline Performance Report, states will be required to collect annual condition data of the superstructure, substructure, deck area and culverts for the National Bridge Inventory.

Minimum condition level requirements

As a minimum condition level, MAP-21 establishes a threshold of no more than 10 percent of NHS bridges measured by deck area being classified as structurally deficient. A structurally deficient bridge is deteriorated structurally, as indicated by a superstructure, deck, and/or substructure rating of four or less, or when the appraisal ratings for structural evaluation or waterway adequacy are two or less, on a scale of zero to nine. Except for structural evaluation or waterway adequacy, WSDOT's poor condition category uses the same data, criteria, and rating scale as that required for MAP-21 (see *Gray Notebook* 50, p. 14). The minimum condition level is applicable to bridges on the NHS, to bridges on ramps connecting to the NHS within a state, and to bridges on the NHS that cross a state border.

The FHWA will carry out the first determination of compliance with the minimum condition requirements in 2018 (based on bridge condition data for 2013, 2014 and 2015), and annually thereafter. Following this schedule, any penalties resulting from the minimum condition compliance determination would not be in effect until after October 1, 2021.

The MAP-21 legislation requires the FHWA's National Bridge Inventory (NBI) be the source of data for classifying a bridge as structurally deficient. Currently, the NBI is the primary source for national bridge information and has been used for many years to classify bridges as structurally deficient, determine eligibility for the Highway Bridge Program, and apportioned federal-aid funds.

Bridge data collection for MAP-21

WSDOT is required to report data to FHWA annually on the condition, functional adequacy and essentiality for the public for all bridges statewide. The bridge data determines sufficiency ratings and if a bridge is structurally deficient and/or functionally obsolete. The same bridges that are rated for WSDOT's condition rating are also rated in the federal system, in addition to local agency owned bridges across the state.

The good, fair, and poor classification of bridges on the NHS utilizes data elements from the NBI database. State DOTs measure and classify a number of standard features for bridges (such as condition and geometric information) in their jurisdiction, which they are required to report to FHWA on an annual basis. These requirements include bridges' on-ramps connecting to the NHS.

Penalties

In order to avoid a penalty, states must meet this minimum condition level: National Highway System (NHS) bridges not to exceed 10 percent structurally deficient, by deck area.

If a state does not meet the minimum condition for three consecutive years, a funding penalty will apply during the following fiscal year and each year thereafter until it is in compliance. The state must obligate and set aside an amount to 50 percent of the apportionment for the Highway Bridge Program in fiscal year 2009, from the NHPP apportionment, only for projects on NHS bridges.

Contractor crews working for WSDOT in the process of rebuilding a new bridge on State Route 162 across the Puyallup River Bridge in Pierce County.

For more information

State bridge condition information: DeWayne Wilson, WSDOT Bridge Management Engineer, at (360) 705-7214 or WilsonD@wsdot.wa.gov.
Local bridge condition information: Roman Peralta, WSDOT Local Programs Bridge Engineer, at (360) 705-7870 or PeraltR@wsdot.wa.gov.

Available Data

- Bridge condition assessment of the National Highway System's National Bridge Inventory item ratings of bridge deck, superstructure, substructure, and/or culverts for all federally reportable state and local bridges][1]

Notes: Data is available for county and city levels and can be provided by the MPO boundaries. 1 Bridge condition data for tribally-owned and federally-owned bridges is provided to WSDOT by the bridge owner.

What is the current distribution of funds?

WSDOT is planning to provide approximately $130 million annually over the next 10 years for bridge preservation, which improves the condition of bridges through replacement, rehabilitation and preventive maintenance. This comes from federal and state revenue sources, and the specific amount each year for bridge preservation is determined based on an assessment of need and available funding through asset management analyses.

Purpose of reporting requirements

In July 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) became law. Included in the law was a Declaration of Policy: "Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds …."

The primary objectives of MAP-21 are to increase the transparency and accountability of states for their investment of federal taxpayer dollars into transportation infrastructure and services nationwide, and to ensure that states invest money in transportation projects that collectively make progress toward the achievement of national goals. The new rules will require reporting performance on the following areas: Safety; Pavement and Bridge; System Performance/Congestion; Freight, and Congestion Mitigation and Air Quality (CMAQ).

Prior to MAP-21, there were no explicit requirements to demonstrate how transportation programs supported national performance outcomes. But many state DOTs, like WSDOT, have engaged in voluntary accountability and reporting efforts.

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WSDOT and MPOs set MAP-21 targets for System Performance, Freight and CMAQ measures

WSDOT, in collaboration with Metropolitan Planning Organizations, finalized MAP-21 targets for highway system performance, freight and Congestion Mitigation and Air Quality (CMAQ) on May 20, 2018. As part of PM3 (as the rule is commonly referred to), recipients of federal aid transportation funds will make transportation investments that show progress toward the following national goals:

- Congestion reduction – To achieve a significant reduction in congestion on the National Highway System;
- System reliability – To improve the efficiency of the surface transportation system;
- Freight movement and economic vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development; and
- Environmental sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment.

A number of tools and resources were used to analyze required data for target setting including the MAP-21 web tool, WSDOT's Corridor Capacity Report, Texas Transportation Institute measure calculation work (a pooled fund study), data from the American Community Survey, and analysis of the state freight system plan and other modal plans.

Requirements related to data, thresholds, metrics, and measure calculation methods are stipulated by FHWA/USDOT. The WSDOT/MPO technical team used historic trend data and the average compound annual growth to set the 2-year and 4-year highway performance targets.

MAP-21 performance measures by program area	Current data	2-year target[1,2]	4-year target[1,2]
Combined Rule (PM3) 23 CFR Part 490 ID No. 2125-AF54			
Highway System Performance (Congestion)			
Percent of person-miles traveled on the Interstate System that are reliable	73%	70%	68%
Percent of person-miles traveled on the Non-Interstate NHS System that are reliable	77%	N/A[3]	61%
National Freight Movement Program			
Truck Travel Time Reliability (TTTR) Index	1.63	1.70	1.75
Congestion Mitigation & Air Quality Program			
Non-Single Occupancy Vehicle (SOV) travel in Seattle urbanized area (NHS)	32%	32.8%	33.2%
Peak hours of Excessive Delay per capita in Seattle urbanized area (NHS)	23	N/A[3]	28
All Pollutants (kg/day)[2]	1,658.640	366.285	658.300
Carbon Monoxide (CO) (kg/day)[2]	313.160	309.000	309.060
Particulate Matter less than 10 microns (PM_{10}) (kg/day)[2]	435.690	0.305	224.000
Particulate Matter less than 2.5 microns ($PM_{2.5}$) (kg/day)[2]	36.820	2.100	8.700
Nitrogen Oxides (NOX) (kg/day)[2]	872.970	54.880	116.540

Notes: Federal rule allows state and MPOs to adjust four-year targets during the mid-performance progress report. There are no monetary penalties involved with PM3. **1** Two- year and four-year target periods for PM3 end October 1, 2020, and October 1, 2022. **2** Base emissions are for the four-year period 2013-2016 as reported in the CMAQ Public Access System. **3** These targets are not required for the 2-year Mid-Performance Period Progress Report.

How FHWA measures system performance, freight movement, congestion mitigation, and air quality

Tracking reliable travel times on interstate, non-interstate roads

Level of Travel Time Reliability (LOTTR) is defined as the ratio of longer travel times (80th percentile) to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set or equivalent. Data are collected in 15-minute segments during four time periods:

- Morning peak (6-10 a.m. Monday-Friday)
- Midday (10 a.m. to 4 p.m. Monday-Friday)
- Afternoon peak (4-8 p.m. Monday-Friday)
- Weekends (6 a.m. to 8 p.m.)

The measures are the percent of person-miles traveled on the NHS that are reliable (with 1.5 TTR being reliable and more than 1.5 TTR being considered unreliable). Person-miles take into account the users of the NHS. Data to reflect the users includes all vehicles.

Assessing the reliability of freight movement

Travel Time Reliability

Level of Travel Time Reliability (LOTTR)	Ratio of longer travel times (80th percentile) to normal travel times (50th percentile)
	NPMRDS data, 15-minute segments during morning peak, mid-day, evening peak, and weekends
	Percent person-miles (required occupancy input)

Implementation timeline for DOTS		Interstate	Non-Interstate NHS
Establish targets	May 20, 2018	2- and 4-year targets	4-year target
Report baseline performance	Oct. 1, 2018	Required	Not required
Mid-term progress	Oct. 1, 2020	4-year targets may be adjusted	
Second performance report	Oct. 1, 2022	Required	Required

The Truck Travel Time Reliability (TTTR) metric is defined as the ratio of the longer truck travel time (95th percentile) to a "normal" truck travel time (50 percentile). It is computed for five time periods:

- Morning peak (6-10 a.m. Monday-Friday)
- Midday (10 a.m. to 4 p.m. Monday-Friday)
- Afternoon peak (4-8 p.m. Monday-Friday)
- Weekends (6 a.m. to 8 p.m.)
- Overnights for all days (8 p.m.-6 a.m.)

The TTTR measure is calculated by multiplying each segment's maximum TTTR metric with its length, and then divided by the total mileage of Interstate System.

Freight Reliability

Interstate Truck Travel Time Reliability Index (TTTR)	Five time periods/NPMRDS segment: Weekday morning peak, mid-day, evening peak; weekend days; and overnight (all days)
	TTTR metric: 95th percentile divided by normal travel times (50th percentile)
	TTTR measure: sum (each segment length times the maximum TTTR metric over five time periods) divided by total interstate length

Implementation timeline for DOTS		Interstate
Establish targets	May 20, 2018	2- and 4-year targets
Report baseline performance	Oct. 1, 2018	Required
Mid-term progress	Oct. 1, 2020	4-year targets may be adjusted
Second performance Report	Oct. 1, 2022	Required

WSDOT and MPOs can obtain the necessary data from FHWA's National Performance Management Research Data Set (NPMRDS), which includes truck travel times for the full Interstate System. However, WSDOT and the MPOs can also opt to use an equivalent, FHWA approved data set instead.

Analyzing excessive delay during peak congestion times

The Peak Hour Excessive Delay (PHED) measure initially applies to urbanized areas of more than one million population that include nonattainment or maintenance areas (ozone, carbon monoxide or particulate matter). This population threshold decreases to include areas of more than 200,000 for the second performance period (which begins October 1, 2022). All States and MPOs with NHS mileage overlapping within an applicable urbanized area must coordinate on a single, unified target and reported on the measures for that area May 20, 2018.

Peak Hour Excess Delay

Peak Hour Excessive Delay (PHED) per capita on the NHS	Excessive delay based on travel time of 20 mph or 60% of posted speed limit, whichever is greater (NPMRDS)
	Measured for 15-minute periods during morning and evening weekday peak hours
	Weighted by volumes and occupancy

Implementation timeline for DOTS		NHS in urbanized areas (UAs)
Establish targets	May 20, 2018	4-year target for UAs greater than 1 million and non-attainment or maintenance air quality
Report baseline performance	Oct. 1, 2018	Report target only, no baseline performance
Mid-term progress	Oct. 1, 2020	2-year baseline and 4-year adjustable targets
Second performance report	Oct. 1, 2022	Applies to UAs greater than 200,000

Only 4-year targets will be reported in the baseline performance period report due by October 1, 2018. States are not required to report 2-year targets or baseline condition for this specific measure in that report for the first performance period. With the first mid-performance period progress report, due October 1, 2020, 4-year targets may be adjusted, and 2-year condition/performance will be reported as baselines.

Traffic congestion will be measured by the annual hours of PHED per capita on the NHS. The threshold for excessive delay will be based on the travel time at 20 mph or 60% of the posted speed limit travel time, whichever is greater, and will be measured in 15-minute intervals. Peak travel hours are defined as 6-10 a.m. on weekday mornings; the weekday afternoon period is 3-7 p.m. or 4-8 p.m., providing flexibility to DOTs and MPOs. The total excessive delay metric will be weighted by vehicle volumes and occupancy. WSDOT must report on metrics annually for all mainline highways on the NHS for all applicable urbanized areas.

Calculating the percent of Non-Single Occupancy Vehicle travel

The rule initially applies to urbanized areas of more than 1 million people include air quality nonattainment or maintenance areas (ozone, carbon monoxide or particulate matter). The population threshold changes to areas of more than 200,000 for the second performance period (which begins October 1, 2022). All States and MPOs with NHS mileage that overlaps within an applicable urbanized area must coordinate on a single, unified target and report on the measures for that area by May 20, 2018.

There are three options to calculate modal share:

1) A minimum option for measurement will use the American Community Survey Commuting (Journey to Work) data from the U.S. Census Bureau (used by WSDOT)

Non-Single Occupancy Vehicle Travel

Non-Single Occupancy Vehicle (SOV) travel in urbanized areas	Carpool, vanpool, public transportation, commuter rail, walking, biking and telecommuting
	Three options to compute: ■ American Community Survey (ACS) Commute data, U.S. Census Bureau ■ Local commuting survey data ■ Modal volume/usage data

Implementation timeline for DOTS		NHS in urbanized areas (UAs)
Establish targets	May 20, 2018	2- and 4-year targets for UAs greater than 1 million and non-attainment or maintenance air quality
Report baseline performance	Oct. 1, 2018	Report target, baseline and methodology
Second performance report	Oct. 1, 2022	Applies to UAs greater than 200,000

2) Localized surveys

3) Volume/usage counts for each mode to determine the percent non-SOV travel, and will be encouraged to report any data not available in national sources today (such as bike counts) to FHWA

Determining progress toward total emissions reduction

The rule applies to all air quality nonattainment and maintenance areas—for ozone, carbon monoxide, course particulate matter (from 2.5 to 10 micrometers in diameter) to and fine particulate matter (2.5 micrometers or smaller)—in Washington for all criteria pollutants. Targets must reflect cumulative emissions reductions to reported in the in CMAQ Public Access System.

- Applicability Determination: one year before State DOT Baseline Performance Period Report due to FHWA. Baseline Performance report is due October 1, 2018, which would make the determination due October 1, 2017.
- Applicability Re-assessment: one year before State DOT Mid-Performance Period Progress Report due to FHWA. Mid-Performance report is due October 1, 2020, which would make the determination due October 1, 2019.
- Significant progress toward individual NHPP and NHFP targets if either A) The actual condition/performance is better than the baseline condition/performance or B) The actual condition/performance level is equal to or better than the established target.

CMAQ performance measure applicability in Washington state

MPO	Maintenance areas	UA population	Emissions measure	Traffic congestion measure
PSRC	PM_{10}, $PM_{2.5}$	>1,000,000	Yes	1st period
Thurston	PM_{10}	<200,000	Yes	2nd period
Vancouver	None	>1,000,000	No	No
Yakima	PM_{10},CO	>200,000	Yes	No
Spokane	PM_{10},CO	>1,000,000	Yes	2nd period

Consequences of not making significant progress toward MAP-21 targets

When significant progress toward NHPP and NHFP targets is not made on System Performance and CMAQ congestion measures, WSDOT must document the actions it will take to achieve its targets. The Freight Reliability target, if missed, requires WSDOT to provide additional documentation in the next performance target report, including an inventory of truck bottlenecks and descriptions of funding allocation to improve bottlenecks, and actions it will undertake to achieve the targets.

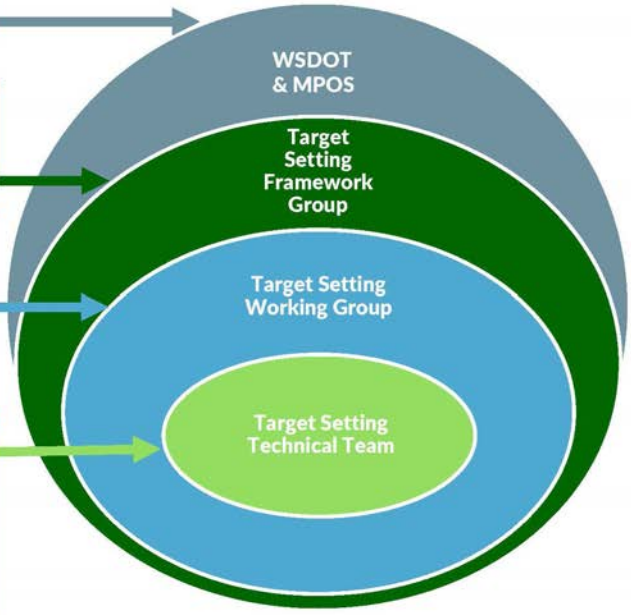
Collaboration and decision making process for PM3 target setting

WSDOT & MPOs: Groups collaborated to set statewide targets, program transportation funds and will continue to engage communities and stakeholders.

Target Setting Framework Group: This group included WSDOT representatives and MPO directors and was responsible for process, data and target decisions.

Target Setting Working Group: This small group of WSDOT staff and MPO representatives discussed policy and process issues in-depth and was responsible for developing the agendas and preparing recommendations for the MAP-21 Target Setting Framework Group.

Target Setting Technical Teams: These groups' purpose was to dig deep into the methodology of data collection and analysis used to establish targets. The groups were comprised of representatives and subject matter experts from WSDOT and MPOs.



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For more information

System Performance: Sreenath Gangula, Assistant Director of the Office of Strategic Assessment and Performance Analysis at (360) 705-6888, GangulS@wsdot.wa.gov.
Freight: Wenjuan Zhao, Multimodal Freight Systems Planning Engineer for Rail, Freight, and Ports Division at (360) 705-6990, ZhoaW@wsdot.wa.gov.
CMAQ Emissions: Karin Landsberg,Senior Policy Specialist – Air Quality and Energy at (360) 705-7491, LandsbK@wsdot.wa.gov.

Important dates for PM3 performance measures

October 1, 2017	First Performance Period for Emissions Reduction Measure starts
January 1, 2018	Performance Period for First Performance Period
May 20, 2018	States set Performance Targets for First Performance Period
November 16, 2018	MPOs accept WSDOT targets or set own
October 1, 2018	Baseline Performance Period Report due
October 1, 2020	Mid-Performance Period Progress Report due (2-year); target adjustment due if needed
March 31, 2021	MPOs target adjustments due if needed
October 1, 2021	First Performance Period for Emissions Reduction Measure ends
October 1, 2022	Full-Performance Period Progress Report due (4-year)

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