



Federal performance reporting requirements for the Moving Ahead for Progress in the 21st Century Act

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 performance measures 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 highway rules will require reporting performance on the following areas:

- Safety
- Pavement and Bridge
- System Performance/Congestion
- Freight
- Congestion Mitigation and Air Quality (CMAQ)

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

Input on two measures accomplished

During the past 18 months, the Federal Highway Administration (FHWA) has used the rule making process to collect input from national, state and local agencies on two national performance measures 1) safety and 2) bridge and pavement conditions (see details on pp. 2-3). The U.S. Department of Transportation (USDOT) is tasked with establishing the performance measures needed to meet these national transportation goals. State DOTs and Metropolitan Planning Organizations (MPOs) will continue to provide input into this rule making process until USDOT releases the final rules. The projected timing will be reflected in the table on page 4.

What is the comment process for federal rules?

As each set of draft rules is released, the public and stakeholders are given 60 to 90 days to comment; so far FHWA has granted 30-day comment extensions on each rule due to their complexity. After the comment period ends, FHWA reviews the comments on each set of draft rules to assess the need for changes to the final rule. FHWA has discussed releasing one final set of rules, with one common effective date yet to be determined.

How will targets be set when the final rules become effective?

Following the effective date of the final rule(s), state DOTs will have 12 months to develop performance targets for each of the new nationally-established performance measures and report those to FHWA. Following the initial 12 months given to state DOTs, the MPOs will have an additional six months to adopt the states' targets or establish their own performance targets.

This is the first time that all state DOTs and MPOs are required to track and report performance data using a national framework of consistent performance measures. State DOTs are encouraged to coordinate with MPOs to establish consistent targets, to the maximum extent practicable. FHWA recognizes the need for State DOTs and MPOs to have a shared vision on expectations for future condition and performance reporting in order for there to be a jointly owned target establishment process. In Washington, MPOs and WSDOT will work together on the target setting process.

What is the National Highway System?

The National Highway System (NHS) is a network of strategic highways within the United States, and includes both state and local highways and roads serving major airports, ports, rail and/or truck terminals, pipeline terminals and other transport facilities. MAP-21 expanded the NHS by 27 percent (59,926 miles) nationally and 26 percent (1,190 miles) in Washington state.

For more information, contact

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MAP-21 draft safety rules released March 2014

In 2014, the safety performance measures' Notice of Proposed Rule Making (NPRM) was released. This is the first in a series of NPRMs expected to implement MAP-21 (Federal Register Vol. 79, No. 60). This draft rule continues the Highway Safety Improvement Program (HSIP) under section 148, title 23 of the United States Code (U.S.C.) as a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads.

The performance measures outlined in this NPRM include the following safety measures:

- Number of traffic fatalities on all public roads
- Rate of traffic fatalities per 100 million vehicle miles traveled (VMT) on all public roads
- Number of serious injuries on all public roads
- Rate of serious traffic injuries per 100 million vehicle miles traveled (VMT) on all public roads
- An omnibus bill that passed in December 2014 requests the addition of a non-motorized safety performance measure related to bicyclist and pedestrian fatalities and serious injuries. Details are unknown until release of final rule.

These performance measures, with the exception of the serious injury rate, are already reported in the Highway Safety Improvement Program (HSIP), every three years in Washington State's Strategic Highway Safety Plan – Target Zero, annually in the Highway Safety Plan (HSP) and annually in the *Gray Notebook* (GNB). The serious injury rate measure is easily accessible from the collected data.

Washington state fatal and serious injuries - all public roads Calendar years 2009 through 2013

Traffic Fatalities	2009	2010	2011	2012	2013
All public roads					
Number of fatalities	492	460	454	438	436
Fatality rate (per 100m VMT)	0.87	0.80	0.80	0.77	0.76
Traffic Serious Injuries					
All public roads					
Number of serious injuries	2,646	2,482	2,136	2,200	1,914
Serious injury rate (per 100 m VMT)	4.69	4.34	3.75	3.89	3.35
Vehicle Miles Traveled (VMT)					
All public roads VMT (in millions)	56,461	57,191	56,965	56,607	57,211
Bicycle/Pedestrian Fatalities					
All public roads					
Number of fatalities	71	69	79	87	61
Bicycle/Pedestrian Serious Injuries					
All public roads					
Number of serious injuries	399	409	402	447	341

Data source: Washington Traffic Safety Commission, Fatality Analysis Reporting System, WSDOT Transportation Data and GIS Office.
Note: All data as of April 20, 2015.

MAP-21 draft pavement and bridge rules released January 2015

In January 2015, FHWA published a notice of proposed rule making in the Federal Register.

This draft rule proposes to establish measures for state DOTs to implement the National Highway Performance Program (NHPP) by assessing pavement conditions on the Interstate system, pavement condition on the non-Interstate National Highway System (NHS) and bridge conditions on the NHS.

The performance measures outlined in this NPRM include the following pavement performance measures:

- Percentage of pavements on the Interstate system in good condition;
- Percentage of pavements on the Interstate system in poor condition;
- Percentage of pavements on the NHS (excluding the Interstate system) in good condition; and
- Percentage of pavements on the NHS (excluding the Interstate system) in poor condition.

The proposed draft rules are requiring the percent of Interstate pavement in poor condition is not to exceed 5 percent; current WSDOT data shows 3.8 percent of the Interstate in poor condition.

States failing to meet this target (Interstate only) for two consecutive years must then devote Surface Transportation Program (STP)/NHPP funds to improve Interstate pavement conditions.



Crews at work crunching the old NE 12th Street Bridge on I-405 to pave the roadway and install concrete panels.

WSDOT evaluation of National Highway System pavement

The FHWA is proposing three condition measures to define pavement performance: roughness, cracking, and rutting (rutting is the surface depression in the wheel path) for asphalt roads and roughness, cracking, and faulting (faulting is the change in elevation across the joints between panels) for concrete pavements. The NHS includes many WSDOT owned highways (approximately 61 percent, or 11,397 of 18,662 lane miles, of WSDOT roads are on the NHS) in addition to local agency owned principal arterial roads (approximately 2 percent, or 3,321 of 152,637 lane miles, of locally-owned roads are on the NHS). For non-Interstate NHS roads, the FHWA is proposing a two-year data collection cycle, and a one-year cycle for Interstate pavements. Currently WSDOT has complete data available for WSDOT roads, but only intermittent data samples for local roads. Using this preliminary data, a tentative analysis of pavement performance of NHS roads in Washington can be summarized using the table at right. When the draft rules become effective,

the Local agency NHS will need to have its condition rating expanded (from current sample sections to full continuous collection on the NHS). However, states will have four years to implement this requirement.

NHS pavement conditions by lane mile (Interstate and non-Interstate) As of December 2013

PAVEMENT CONDITION	Good		Poor	
	Lane Miles	Percent	Lane Miles	Percent
Interstate¹				
State-owned	908	22.7%	152	3.8%
Non-Interstate²				
State-owned	1,908	17.8%	182	1.7%
Locally-owned ³	257	2.4%	1,801	16.8%
Total Non-Interstate	2,165	13.0%	1,983	6.4%

Data source: WSDOT Pavement Office.

Note: Lane miles of pavement in fair condition not included. 1 Interstate percentage based on 3,999 total miles. 2 Non-Interstate NHS percentages based on 10,719 miles. 3 Locally-owned pavement is owned by counties and cities.

MAP-21 performance measures for National Highway System bridges

Draft rules require all states to report on the following bridge performance measures:

- percentage of NHS bridges in good condition, and
- percentage of NHS bridges in poor condition.

MAP-21 requires that states have no more than 10 percent of bridge deck area classified as structurally deficient on the NHS. States failing to meet this target for three consecutive years must then devote a certain percentage of NHPP funds to improve bridge conditions.

Washington's NHS includes 2,458 bridges, 2,259 (92 percent) of which are managed by WSDOT. The remaining 200 (8 percent) are managed by cities and counties.

According to the FHWA, in 2013 Washington ranked 13th highest in the nation in terms of the amount of structurally deficient bridge deck area on the NHS for state and local bridges.

Condition ratings for bridges on the NHS As of April 2015

BRIDGE CONDITION	Good		Poor	
	Deck area ¹	Percent	Deck area ¹	Percent
State-owned	12.5	32.0%	3.6	9.1%
Locally-owned ³	1.7	43.4%	0.4	11.5%
Total NHS	14.2	33.0%	4.0	9.3%

Data source: WSDOT Bridge & Structures Office.

Note: MAP-21 procedures uses for condition rating (Good NBI 7 or 9 / Fair NBI 5 or 6 / Poor NBI 3 or 4). 1 Deck areas in millions of square feet; rounding numbers may create slight variances State-owned deck percentages based on 39.2 million square feet, locally-owned based on 3.9 million square feet, total deck area percentages based on 43.0 million square feet. 2 Locally-owned bridges owned by counties and cities.

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FHWA rates bridges for structural deficiency by calendar year, using the same data and condition rating scale WSDOT uses for good, fair and poor condition. Unsafe bridges are closed and are not counted in WSDOT's rating.

What is the current distribution of funds?

The distribution of federal-aid highway funding is currently split with 66 percent to WSDOT and 34 percent to local agencies, based on Governor Gregoire's MAP-21 steering committee recommendations for federal highway funds distribution.

Safety: The local federal safety program provides more than \$20 million annually of federal Highway Safety Improvement Program (HSIP) funds to jurisdictions in Washington state. The funds are used to implement engineering countermeasures to reduce fatal and serious injury crashes. Federal funding provided to the state is split based upon fatal and serious injury crash data which reflects 30 percent on state facilities and 70 percent on local facilities. WSDOT prioritizes and selects local safety projects for funding based on crash data and benefit-cost analysis.

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 (about 58 percent of the total STP funding is allocated to local agencies, and 42 percent for WSDOT). MPOs, Regional Transportation Planning Organizations and County lead agencies prioritize and select projects based on their regional priorities.

Bridge: WSDOT's local federal bridge program provides approximately \$45 million (\$23 million from NHPP and \$22 million from STP) annually to improve the condition of bridges through replacement, rehabilitation and preventive maintenance. WSDOT prioritizes and selects local bridge projects for funding based on the condition of the structures.

Overview: MAP-21 federal performance reporting requirements

MAP-21 goals by program area	Federal threshold/benchmark ¹	WSDOT penalty ² Yes/No	Federal Register Vol. 79, No. 60				
Highway Safety Improvement Program							
Rate of traffic fatalities per 100 million vehicle miles traveled (VMT) on all public roads	No	Yes		Draft rule released 3/11/14	Comment due 5/27/14	Final rule release TBD ³	Final rule effective TBD
Rate of serious traffic injuries per 100 million vehicle miles traveled (VMT) on all public roads	No	Yes					
Number of traffic fatalities on all public roads	No	Yes					
Number of serious traffic injuries on all public roads	No	Yes					
Rate of per capita traffic fatalities for drivers and pedestrians 65 years of age or older	No	No					
Rate of fatalities on high-risk rural roads	No	Yes					
Highway-railway crossing fatalities	No	No					
Bicyclist/pedestrian TBD	TBD	TBD					

National Highway Performance Program			Federal Register Vol. 80, No. 2				
National Highway System and Interstate pavement in good and poor conditions	% of Interstate pavement in poor condition not to exceed 5%	Yes		Draft rule released 1/5/15	Comment due 5/8/15	Final rule release TBD	Final rule effective TBD
National Highway System bridges classified in good and poor conditions	<10% of deck area on SD ⁴ bridges	Yes					

Combined Draft Rule - anticipated in near future							
System Performance (Congestion)							
System Performance measures to be determined through federal rule making	No	No		Draft rule released TBD	Comment due TBD	Final rule release TBD	Final rule effective TBD
National Freight Movement Program							
Freight measures to be determined through federal rule making	No	No					
Congestion Mitigation and Air Quality Program (CMAQ)							
CMAQ measures to be determined through federal rule making	No	No	<div style="border: 1px solid black; padding: 5px;"> This folio will be updated when remaining draft rules for system performance/congestion, freight and CMAQ are released. </div>				

Data source: WSDOT Office of Strategic Assessment and Performance Analysis.

Notes: 1 Minimum threshold or benchmark to be established by the U.S. Department of Transportation, Secretary of Transportation.

2 Penalties apply only to WSDOT. Penalties apply for some measures if WSDOT or the MPO does not attain the target within a given time frame. Penalties include minimum allocations of federal funding toward programs to progress toward the desired target. 3 TBD = To be determined. 4 SD = structurally deficient.