



Update on the Development of MAP-21 Performance Measures

TPB Technical Committee
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Item 6

Overview

- MAP-21 Rulemaking Schedule Update
- Transit Asset Management NPRM
- Next Steps in MAP-21 Performance Provisions
Regional Coordination

Performance Provisions – Rulemaking Schedule

	Planning Rules	Proposed Rulemaking	Final Rulemaking
Planning	<ul style="list-style-type: none"> • Statewide and Metropolitan Planning Rule 	June 2014	<i>March 25, 2016</i>
Highway Safety	<ul style="list-style-type: none"> • Safety Performance Measure Rule • Highway Safety Improvement Program (HSIP) • Highway Safety Program Grants Rule 	March 2014	<i>February 2016</i> (Interim Final Rule for Grants issued January 2013).
Highway Conditions	<ul style="list-style-type: none"> • Pavement and Bridges Performance Measurement • Asset Management Plan 	January/February 2015	<i>May 2016</i>
Congestion / System performance	<ul style="list-style-type: none"> • System Performance Measures Rule (Congestion, Air Quality, and Freight) 	<i>November 30, 2015</i>	?
Transit	<ul style="list-style-type: none"> • Transit Asset Management • National Public Transportation Safety Program • Public Transportation Agency Safety Plan 	September 30, 2015 (Transit Asset) <i>December 17, 2015</i> (Agency Safety Plan)	?

Transit Asset Management

Notice of Proposed Rulemaking (NPRM) published September 30, 2015

What is TAM?

- A transit asset management (TAM) system is “a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets.”

Applicability

- Applies to all recipients or subrecipients of Federal transit funds (e.g., Section 53XX funds) that own, operate, or manage capital assets used in the provision of public transportation.
- “TAM plans would be required to account for all assets used in the provision of public transportation service for the recipient or subrecipient, regardless of funding source, and whether used by the recipient or subrecipient directly, or leased by a third party.”

***Public transportation agency discussion being coordinated through TPB
Regional Public Transportation Subcommittee.***

Who Does Transit Asset Management?

Agency Size – Tier 1 or Tier II

- Tier I provider is a recipient with 101+ vehicles in revenue service during peak regular operations, across all modes, or that operates a rail system.
 - Each Tier 1 provider has to prepare and submit a Transit Asset Management Plan
- Tier II provider is a recipient or with 100 or fewer vehicles in revenue service during peak regular operations, across all modes, and no rail system.
 - Tier II providers are grouped and reported collectively by State or other recipient.
 - Option to report individually.

Annual Reporting Requirements

- “Each designated recipient must submit two annual reports:
 - On the condition of their public transportation systems, including a description of any change in condition since the last report,
 - Describing progress towards meeting performance targets established during that fiscal year and a description of the performance targets for the subsequent fiscal year.”

Elements of Transit Asset Management Plan

TAM Plan has nine elements (only 1-4 are required of Tier II recipients)

1. An inventory of capital assets
 2. A condition assessment of the capital assets (with level of detail sufficient to monitor and predict the performance of each capital asset)
 3. A list of the transit provider's analytical processes or decision-support tools that:
 - (i) Estimate capital investment needs over time;
 - (ii) Assist capital asset investment prioritization;
 4. A project-based prioritization of investments.
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5. A transit asset management and State of Good Repair (SGR) policy;
 6. A strategy for the implementation of the TAM plan;
 7. A description of annual key transit asset management activities spanning the time horizon of the TAM plan;
 8. A specification of the resources, including personnel, needed to develop and implement the TAM Plan; and
 9. An outline of how the TAM plan and related business practices will be monitored, evaluated and updated, as needed, to ensure the continuous improvement of transit.

Transit Asset Performance Measures

Performance Measures

(a) Equipment - (non-revenue) service vehicles (Age)

- Percentage of vehicles that have met or exceeded their useful life benchmark (ULB).
 - Cranes, prime movers, vehicle lifts, tow trucks

(b) Rolling stock (Age)

- Percentage of revenue vehicles within a particular asset class that have meet or exceed ULB.
 - 40 foot bus, 60 foot bus, vans, cutaways, locomotives, rail vehicles

(c) Infrastructure-rail fixed-guideway track, signals, and systems (Condition)

- The percentage of track segments, signal, and systems with performance restrictions.
 - Signal or relay house, interlockings, catenary, mechanical, electrical and IT systems

(d) Stations/Facilities (Condition)

- The percentage of facilities within an asset class, rated below condition 3 on the TERM scale.
 - Maintenance, Administration, Depots, Terminals, Parking Garages

TAM Plan Investment Prioritization

Investment prioritization required

- a) A TAM plan must include an investment prioritization that identifies projects to improve or maintain the state of good repair of capital assets over the horizon period of the TAM plan.

Projects ranked by priority, based on policy and safety

- b) Projects to improve or maintain the state of good repair of capital assets must be ranked in order of priority and the year in which they are anticipated to be carried out.
- c) Ranking of projects in the investment prioritization must be established on the basis of the transit asset management policy and strategies identified in the TAM plan.
- d) The investment prioritization must give due consideration to those projects for state of good repair that pose an identified unacceptable safety risk.

Projects fiscally constrained

- e) The investment prioritization must take into consideration an estimate of funding levels and funding sources that are reasonably expected to be available in each fiscal year during the TAM plan horizon period.

For Statewide and Metropolitan Planning

- “Coordination amongst transit providers, States and MPOs should influence MPO and State transportation funding investment decisions and is intended to increase the likelihood that transit SGR needs are programmed, committed to, and funded as part of the planning process.”
- “The Statewide and Metropolitan Transportation Plans shall include:
 1. A description of the TAM performance measures and targets;
 2. A report evaluating the condition of the transit system(s) with respect to the State and MPO performance measures and targets, including the progress achieved in meeting performance targets compared with system performance recorded in previous years.”
- “Transportation improvement programs (TIPs) and statewide transportation improvement programs (STIPs) must include, to the maximum extent practicable, a discussion of the anticipated effects of the TIP/STIP toward achieving the TAM performance targets in the Statewide and Metropolitan Transportation Plans by linking TAM investment priorities to those performance targets.”

Next Steps in MAP-21 Performance Provisions

Regional Coordination

- TPB staff are analyzing data to develop performance measures for the TPB metropolitan planning area in:
 - **Highway Safety:** Number and Rate of Fatalities and of Serious Injuries
 - **Highway Condition:** Percentage of Pavement and of Bridges in Good condition and in Poor condition
- Data collection shows that some data is not readily obtainable: serious injury by jurisdiction; pavement type data for NHS arterial highways, pavement condition for NPS parkways.
- ❖ In November, TPB staff anticipate completing preliminary analysis for the TPB region and sharing with State DOTs for discussion.
- ❖ In December, anticipate sharing initial results with Technical Committee.

Highway Safety Performance Measures and Data Sources

Performance Measure	Description	Data Source
Number of Fatalities <i>(5 year rolling average)</i>	Total number of fatalities during a calendar year	FARS ¹
Rate of Fatalities per 100 million VMT <i>(5 year rolling average)</i>	Ratio of total fatalities to VMT	FARS and HPMS ²
Number of Serious Injuries <i>(5 year rolling average)</i>	Total number of serious injuries during a calendar year	State reported serious injury data ³
Rate of Serious Injuries per 100 million VMT <i>(5 year rolling average)</i>	Ratio of total serious injuries to VMT	State reported serious injury data ³ and HPMS

¹ FARS: Fatality Analysis Reporting System

² HPMS: Highway Performance Monitoring System

³ for the first 18 months – after that States must adopt the Model Minimum Uniform Crash Criteria (MMUCC) definition of serious injury

Highway Condition Performance Measures and Data

Performance Measure	Data
(1) Percentage of pavements on the Interstate System in Good condition	<p>four metrics:</p> <ol style="list-style-type: none"> 1. IRI (International Roughness Index) 2. Cracking_Percent 3. Rutting (<i>asphalt only</i>) 4. Faulting (<i>jointed concrete only</i>) <p>three types of pavements:</p> <ol style="list-style-type: none"> 1. Asphalt pavements 2. Continuously Reinforced Concrete Pavement (CRCP) 3. Jointed Concrete Pavements
(2) Percentage of pavements on the Interstate System in Poor condition	
(3) Percentage of pavements on the NHS (excl. Interstate System) in Good condition	
(4) a Percentage of pavements on the NHS (excl. Interstate System) in Poor condition.	
(5) Percentage of NHS Bridges Classified as in Good Condition	<p>four condition ratings:</p> <ol style="list-style-type: none"> 1. Deck, 2. Superstructure, 3. Substructure, 4. Culverts.
(6) Percentage of NHS Bridges Classified as in Poor Condition	

- Pavement data submitted to Highway Performance Monitoring System (HPMS)
- Bridge ratings submitted to National Bridge Inventory (NBI)

Questions?

