

AASHTO SCOPM MAP-21 Notice of Proposed Rule-Making Checklist (System Perf.)

Document Overview

MAP-21 legislation requires States to:

- Establish performance targets for system performance on the National Highway System – based on specific measures established by the Secretary of Transportation
- Submit biennial performance reports on the established measures and targets
- Meet, or make significant progress toward meeting the State-established targets

The Notice of Proposed Rulemaking (NPRM) for implementing the provisions of the legislation is expected to include more specific implementation details on system performance measure definition, data sources, and calculation methods; and the processes for target-setting and performance reporting.

This document provides a set of checklists that can be used to assist in the review of the MAP-21 Congestion/System Performance NRPM provisions related to NHS system performance measurement. The checklists may suggest areas where comments are warranted to ensure that the final rules (1) support current or desired state performance management processes and (2) can be implemented in a manner that minimizes burdens on limited state resources. The checklists were based on the recommendations developed through the AASHTO Standing Committee on Performance Management (SCOPM) Task Force on Performance Measure Development, Coordination and Reporting. These checklists reflect the input that was provided by the Task Force to FHWA on rules related to national performance measures and targets.

Each section of this document presents a summary of the relevant statutory provisions, a statement of what additional guidance may be provided in the NPRM, and a checklist of considerations that some States may wish to see reflected in the final rules.

Performance Measure Definitions and Data Sources

Summary of Statutory Provisions: §1203(c); 23 USC 150(c) The Secretary will establish measures for States to use to assess the performance of the Interstate System; and the performance of the National Highway System (excluding the Interstate System);

Context: To implement section 1203 of MAP-21, FHWA’s rulemaking will define specific system performance measures. In addition to specifying the measures, the rulemaking is expected to clarify the methods state DOTs will use for calculating the required measures.

Checklist: The following checklist can be used as a guide for review of the NPRM; it may suggest areas where comments are warranted to ensure that the final rules support current or desired state performance management processes and can be implemented in a manner that minimizes burdens on limited state resources.

The performance measures shown below reflect the statutory requirements and incorporate the recommendations of the Task Force on measure calculation and definition.

Note that there were concerns among some Task Force members with respect to: (1) whether delay and reliability are appropriate “one size fits all states” measures, (2) whether these measures adequately capture characteristics of interest such as percent of travel meeting generally accepted operating conditions or utilization of available capacity, and (3) whether states should have flexibility to set threshold speed values for determining congestion/delay – or whether there should be national standard threshold speed values for rural and urban areas.

Task Force Recommended Measures

- Annual Hours of Delay (AHD)** — Travel time above a congestion threshold (defined by State DOTs and MPOs) in units of vehicle -hours of delay on Interstate and NHS corridors.
- Reliability Index (RI₈₀)** —The ratio of the 80th percentile travel time to the agency-determined threshold travel time.

Measure Definition, Sources and Calculation Methods

- Definition – AHD.** AHD is the amount of extra time spent by each vehicle traveling due to congestion (based on a state- determined threshold of congestion). AHD is a summation of the number of daily vehicle-hours of delay due to congestion along Interstate and NHS corridors within a state. Extra travel time shows where long distance trips by many commuters are occurring in slow conditions. It is composed of miles traveled, vehicles traveling (volumes), and the speed of travel.

Measure Definitions and Data Sources (continued)

- Definition – Reliability Index.** The Reliability Index is defined as the ratio of the total travel time needed to ensure on-time arrival at the desired destination to the agency-determined threshold travel time. A Reliability Index of 1.50, for example, indicates that travelers should allow 30 minutes for a trip that would take only 20 minutes at the agency-determined congestion threshold conditions (20 minutes times 1.50 = 30 minutes).
- 80th Percentile Worst Travel Time.** Travel time is defined as the time taken to traverse a fixed distance between the origin and destination of the route and is not independent of the distance traveled. The Reliability Index will use the 80th percentile worst travel time recorded during the weekday peak periods each year. This is the amount of time that should be allowed to arrive on time for 4 out of 5 trips.
- Data Sources – Federal Support.** Implementation of these performance measures is dependent on U.S. DOT providing to State DOTs and MPOs private sector speed data and vehicle miles traveled data from HPMS volume data and the respective analysis tools. USDOT must provide processed traffic data in a “ready to use format” that can be readily integrated with other existing datasets in a state (traffic volume, number of lanes, roadway type, etc.)
- VMT Source.** VMT should be calculated for each corridor segment using the FHWA HPMS Average Annual Daily Traffic (AADT).
- Travel Speed Source.** Travel speed data should be provided as part of the FHWA National Travel Data Set. This dataset will include hourly speeds for each day of the average week on each Corridor Segment. (There could be separate data sets for passenger vehicle and truck speeds.)
- Corridor Selection.** Each state and MPO would select Interstate and Non-Interstate corridors for performance measure calculation.
- Threshold for Determining Congestion.** Each state and MPO should have the flexibility to establish a threshold speed for congestion on each corridor – e.g. posted speed, maximum throughput speed, free-flow speed, severe congested speed. Threshold values should be set based on established agency practices and defensible factors (e.g. corridor characteristics, operational factors, existing capacity, rural vs. urban, etc.) Both the delay and reliability measures should use the same Agency-Specified Threshold Speed determined by the State DOTs and MPOs.

Comments:

Target Setting Method and Process

Summary of Statutory Provisions: §1203; 23 USC 150(d) States have 12 months from final rulemaking to set targets reflecting the established measures, with the option of setting different targets for rural and urbanized areas.

Context: Per section 1203 of MAP-21, States have flexibility in setting target values of the established national measures. However, rulemaking is likely to provide additional information on the process by which States establish targets. It may discuss factors that States should consider as they set targets (e.g. implications of setting aggressive versus easily-attainable targets.) Guidance may also be provided on the relationship between existing state performance targets and those targets established in response to MAP-21.

Checklist: The following checklist can be used as a guide for review of the NPRM; it may suggest areas where comments are warranted to ensure that the final rules support current or desired state performance management processes and can be implemented in a manner that minimizes burdens on limited state resources.

- Scope and Basis for Targets.** Targets set by States and MPOs may vary by facility, by corridor, by region, by rural or urban, by freight versus commute route or other factors such as investment levels, available transit options, remaining capacity and levels of recurrent versus non recurrent congestion levels.
- Allow Flat or Declining Performance Targets.** States should have the flexibility to choose to set targets that have performance holding steady, or in some situations declining. For example “annual delay should not increase more than 5 percent per year”.
- Allow Relative Targets.** States should have the flexibility to choose to set targets that are linked to the growth in the regional economy. Measuring the percent change in delay compared to percent change in gross metropolitan product could provide a more relevant comparison of the role of transportation and land use decisions during periods of rapid growth with periods of slow or no growth. An example target for this measure may state that the percent increase in delay should be no more than the percent increase of the gross metropolitan product.
- State Flexibility.** States should have flexibility to set the target values for each of the required measures. Targets need to be set in the context of available funding and agency funding allocation decisions. (cross-cutting recommendation)
- Allow States to Set Target Ranges.** The value of performance management is found in better decision-making, not target achievement. DOTs support the idea of allowing States to establish *ranges* of acceptable performance outcomes. Use of ranges can provide DOTs with a more nuanced way of discussing performance outcomes across multiple competing objectives. (cross-cutting recommendation)

Target Setting Method and Process (continued)

- Focus on Federal Objectives.** MAP-21 performance measure and target-setting rules should focus on federal objectives and state support of these objectives. The rules should be focused on the ability of states, using available federal funds, to deliver the desired results – not on how states manage their own programs that do not use federal funds. (cross-cutting recommendation)
- Risk Based Approaches and Tradeoffs.** Allow flexibility for DOTs and MPOs to use a risk based target setting approach. Risk-based targets do not reflect optimal outcomes within a particular investment area; rather, risk-based targets represent strategic objectives within a plan to manage agency risks. Allowing states to approach target-setting for the entire set of national performance measures as a bundle accommodates states that have tradeoff processes across asset/program areas. (cross-cutting recommendation)
- Allow for Target Adjustments.** If a state wants to adjust targets dynamically (on an ongoing basis as conditions change), they should be allowed to do so.
- Targets for Trends Rather than Absolute Values.** Consider allowing targets in the form of percent change (slope or trend line rather than single number).
- Acknowledge Risks in Target Setting.** The rules should acknowledge that target setting has risks – an agency that doesn't meet the target they have established could face public criticism or other unintended consequences (cross-cutting recommendation)
- Provide Rationale.** Setting targets should be accompanied by a rationale for selecting the specific target value. (cross-cutting recommendation)
- Rational Schedule.** The time periods for the performance measure data collection, target setting assessment, and target adjustments need to consider the varying processes each state has for these activities. (cross-cutting recommendation)
- Target-Setting Timeline.** A state should have the flexibility to align their MAP-21 target-setting and performance reporting schedule with their TIP/STIP project cycle. (cross-cutting recommendation)
- Coordination of State and MPO Targets.** The development of state and MPO targets should be coordinated through a 3C (continuing, cooperative and comprehensive) planning process. This process should result in MPO targets that are attainable given the level of investment a DOT plans to make in a metropolitan planning area (MPA) over a particular time-horizon. Whenever possible, DOTs and MPOs should use consistent (i.e. equivalent) targets to assess the condition and performance of state highways within an MPA. (cross-cutting recommendation)

Comments:

Performance Reporting and Progress Evaluation

Summary of Statutory Provisions: §1203; 23 USC 150(e) States have four years from the enactment of MAP-21 to submit a first biennial performance report addressing progress in achieving performance targets.

Context: Per section 1203, FHWA's rulemaking is likely to define more specific requirements and processes for state performance reporting. Guidance may be provided on the format, structure, and submittal requirements of the Biennial Performance Reports. Rulemaking may also address the relationship between existing state performance reporting processes and products and the reporting requirements established through MAP-21.

Checklist: The following checklist can be used as a guide for review of the NPRM; it may suggest areas where comments are warranted to ensure that the final rules support current or desired state performance management processes and can be implemented in a manner that minimizes burdens on limited state resources.

- Reporting by Corridor.** AHD and Reliability Index should be reported on individual corridors, as determined by the State DOT and MPOs.
- Statewide Reporting - AHD.** AHD should also be reported Statewide as the accumulation of AHD across Interstate corridors, and non-Interstate NHS corridors
- Statewide Reporting – Reliability Index.** Averages across Interstate and non-Interstate NHS corridors should be reported for locations where the Reliability Index is greater than 1.0.
- Explanation for Results.** When states and MPOs do not meet performance targets, they should describe what they have done to improve performance, how those actions impacted the performance, and why they have not met the target. (cross-cutting recommendation)
- Accountability Based on Control.** Only hold state DOTs and MPOs accountable for what they manage and control. Those who set targets should be those who manage and fund the system and are held responsible for compliance. Agencies should not be penalized for not meeting targets due to circumstances beyond their control. (cross-cutting recommendation)
- Self-Evaluation/Telling the Story.** States and MPOs should be allowed to self-evaluate in determining whether ‘significant progress’ has been made. This assessment should be based on quantitative and, if needed, qualitative data. In addition, determination of “significant progress” should be supported by narrative information if specific performance targets are not achieved. In this case, States and MPOs should provide narrative information and data to document the circumstances and assessment determination. (cross-cutting recommendation)
- Programmatic Approach:** The “significant progress” determination should be made based on a programmatic approach rather than based on separate evaluations for individual target areas. This approach would support States and MPOs in making balanced and sound investment decisions rather than trying to meet one target at the expense of another. (cross-cutting recommendation)

Performance Reporting and Progress Evaluation (continued)

- Defining Significant Progress and Progress Agreements:** Consistent with current practice, States and their local FHWA Division offices should continue to work together and be
- empowered to consensually develop and determine what constitutes significant progress – at the program or performance measure level. Progress determination could be based on mutually agreed on templates and criteria. (cross-cutting recommendation)

Comments: