



MEMORANDUM

TO: TPB Technical Committee
FROM: Eric Randall, TPB Transportation Engineer
SUBJECT: Update on Federal Performance-Based Planning and Programming (PBPP) Rulemaking and Activities
DATE: October 27, 2017

This memorandum provides an update for the TPB Technical Committee on federal rulemaking and staff activities to implement the performance-based planning and programming (PBPP) requirements under the federal surface transportation act Moving Ahead for Progress in the 21st Century (MAP-21) and continued in the Fixing America's Surface Transportation Act (FAST Act).

PBPP RULEMAKING

The PBPP rulemaking is largely complete.

- The final Highway Assets: Pavement and Bridge Condition rule was published on January 18, 2017 and became effective on May 20, 2017 (following two postponements to provide time for the new administration's officials to review new and pending regulations).
- The final System Performance (Interstate and National Highway System (NHS), Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program) rule was published on January 18 and also became effective on May 20.
 - One NHS performance measure: Percent Change in Tailpipe Carbon Dioxide Emissions, also known as the Greenhouse Gas (GHG) measure, was indefinitely delayed in May, but was subsequently made effective on September 28, 2017.
 - On October 6, FHWA issued a Notice of Proposed Rulemaking (NPRM) to repeal the GHG measure. Comments are due by November 6, and the TPB is submitting the attached comment letter. An initial draft of this letter was distributed and discussed at the October 18 TPB meeting.
- The final National Public Transportation Safety Plan rule was published on January 18, 2017, finalizing the transit safety performance measures.
 - However, the Public Transportation Agency Safety Plan which would specify the target-setting process and timeline is still pending, anticipated in February 2018.

PBPP ACTIVITIES

The first action of the board for PBPP was to approve the region's initial transit asset management targets this past June. The board's next action will be approval of highway safety targets for the region, anticipated in January 2018. This target-setting is required within 180 days (i.e., by February 2018) following the State DOTs' setting of statewide targets by August 31, 2017. The approval of highway safety targets for the region will be an annual requirement.

TPB staff is continuing collaboration with DDOT, MDOT, and VDOT, as well as with WMATA and other providers of public transportation, for each PBPP performance area: Highway Safety, Highway and Bridge Condition, System Performance (Congestion, Freight, and CMAQ). See Table 1 at the end of the memo for the entire list of PBPP performance measures, including the types of responsible agencies and target setting deadlines.

In the next few months, TPB staff will be working with the DOTs, NHS asset owners, and the providers of public transportation to develop formal agreements on appropriate responsibilities for the PBPP data collection and target-setting process, as required under the new Statewide and Metropolitan Planning Rule. Table 2 displays the PBPP goal areas and the corresponding parties in the region which will need to agree on and formally document respective PBPP responsibilities for performance target selection and project programming.

The detailed status of each of the PBPP areas is as follows.

1. Planning

The final Statewide and Metropolitan Planning Rule provides more direction and guidance on requirements for the performance-based planning and programming provisions, including forecasting performance, target-setting, documentation in the CLRP and TIP, and an annual System Performance Report.

To implement PBPP, there is a requirement (§ 450.314(h)) for each MPO, highway agency, and provider of public transportation in the region to jointly agree upon and document in writing the coordinated processes for:

- Collection of performance data
- Selection of performance targets for the metropolitan area
- Reporting of metropolitan area targets
- Reporting of actual system performance (related to those targets).

TPB staff are working to send a formal communication to each stakeholder to begin discussion on the above requirement, including a request for participation and a proposed process.

2. Highway Safety

The final Highway Safety rule was issued in March 2016. The first targets were set by State DOTs in August 2017, when State DOTs submitted their new Highway Safety Plans to FHWA, including measures and targets for the upcoming year.

TPB staff have collected the latest data from each DOT and are refining it for the metropolitan planning area. Coordination with the State DOTs continues through participation in webinars and workshops. Target-setting by the TPB must occur within 180 days following the setting of State DOT targets, or by February 2018 for the first set of highway safety targets.

3. Highway Asset Conditions

The final rule became effective on May 20, 2017. By May 20, 2018, State DOTs must set their initial two-year and four-year targets, for the period 2018-2021. These will need to be reported to FHWA by October 2018. In addition, the TPB will need to adopt four-year targets for the region by November 2018.

The committee was briefed on the region's highway asset conditions at the April 2017 meeting, with the 2016 bridge data and the 2015 pavement data. A one-page summary sheet reports the pavement and bridge conditions for the TPB planning area, but is also provided for Suburban Maryland and Northern Virginia and for each jurisdiction in the region. In addition to showing the required performance measures (good and poor condition), the summary sheet also provides background information such as lane-miles of Interstate and Non-Interstate NHS, the top 3 deficient bridges, and ownership of the Non-Interstate NHS. In addition, a map site for the pavement and bridge conditions was developed: https://gis.mwcog.org/webmaps/tpb/pbpp/pavement_bridge/

The 2016 pavement data became available in October 2017 through the Highway Performance Monitoring System (HPMS), and TPB staff will work to update the performance data for the region and the GIS map. This information will be shared with the State DOTs and the jurisdictions in the as work continues towards setting targets in late 2018.

4. System Performance – NHS Congestion, Freight, CMAQ Program

TPB staff are evaluating the final rule, both requirements and data needs. The next step will be to evaluate the feasibility of conducting a sensitivity analysis on the performance measures to determine the impact on regional performance. Several of the measures need data that are currently unavailable (e.g., federal factors) or action by the State DOTs (e.g., establishing desired travel time for each road segment). TPB staff are coordinating with State DOTs on collecting and/or determining this data.

5. Transit Asset Management

The final transit asset management rule became effective October 1, 2016. The rule applies to almost every transit provider in the region, and requires annual setting of targets for transit asset condition. The TPB approved an initial set of regional transit asset targets in June 2017.

FTA has issued new guidance and guidebooks on the TAM requirements, due dates, and MPO role for the transit asset management target-setting. Next steps include:

- Transit providers were to submit FY 2017 data to the National Transit Database as well as approve their FY 2018 targets by October 31, 2017 (for those providers with a July to June fiscal year).
- However, both these requirements are optional for this year only. They are mandatory starting next year, with submission of FY 2018 data and FY 2019 targets required by October 31, 2018. In addition, all providers should have completed and adopted formal Transit Asset Management plans by that date.
- Every long range plan and TIP adoption by the TPB will need to incorporate approval of the latest transit asset targets for the region.
- TPB staff are working to incorporate this guidance into the documentation of coordinated processes for PBPP between the TPB and the region's providers of public transportation.

6. Transit Safety

The final transit safety rules are still pending. The National Public Transportation Safety Plan specifying the final performance measures has been published. However, the Public Transportation Agency Safety Plan, which would specify the target-setting process and timeline, is still pending, now anticipated in February 2018.

Once published, the process for setting the transit safety targets will be discussed at the TPB Regional Public Transportation Subcommittee and the Technical Committee.

TABLE 1: PERFORMANCE BASED PLANNING AND PROGRAMMING PERFORMANCE MEASURES

Table of entire list of Performance Measures

PBPP Areas	Agencies	DOTs / NHS Owners / Transit	
		Providers set Targets	MPO sets Targets
1. Planning Rules			
Agreement on sharing Data, selecting Targets, and Reporting Progress	DOTs, MPOs, Transit Providers	5/27/2018	5/27/2018
Date of conforming CLRPP and TIP	MPOs	5/27/2018	5/27/2018
2. Highway Safety (5 measures)			
Number of Fatalities	DOTs, MPOs	8/31/2017	2/27/2018
Rate of Fatalities per 100 million VMT	DOTs, MPOs	8/31/2017	2/27/2018
Number of Serious Injuries	DOTs, MPOs	8/31/2017	2/27/2018
Rate of Serious Injuries per 100 million VMT	DOTs, MPOs	8/31/2017	2/27/2018
Number of Non-Motorized Fatalities and Serious Injuries	DOTs, MPOs	8/31/2017	2/27/2018
3. Highway Asset Condition (6 measures)			
<u>Interstate system</u> : Percentage of pavement in Good condition	DOTs, MPOs	5/20/2018	11/16/2018
<u>Interstate system</u> : Percentage of pavement in Poor condition	DOTs, MPOs	5/20/2018	11/16/2018
<u>NHS (non-Interstate)</u> : Percentage of pavement in Good condition	DOTs, MPOs, NHS Owners	5/20/2018	11/16/2018
<u>NHS (non-Interstate)</u> : Percentage of pavement in Poor condition	DOTs, MPOs, NHS Owners	5/20/2018	11/16/2018
<u>NHS</u> : Percentage of Bridges in Good Condition	DOTs, MPOs, NHS Owners	5/20/2018	11/16/2018
<u>NHS</u> : Percentage of Bridges in Poor Condition	DOTs, MPOs, NHS Owners	5/20/2018	11/16/2018
4. System Performance Measures: Highway (3 measures)			
<u>Interstate system</u> : Percentage of Person-Miles Traveled that are Reliable	DOTs, MPOs	5/20/2018	11/16/2018
<u>NHS (non-Interstate)</u> : Percentage of Person-Miles Traveled that are Reliable	DOTs, MPOs	5/20/2018	11/16/2018
<u>NHS</u> : Percent Change in Tailpipe CO2 Emissions	DOTs, MPOs	5/20/2018	11/16/2018
5. System Performance Measures: Freight Movement (1 measure)			
<u>Interstate system</u> : Percentage of Mileage providing for Reliable Truck Travel Times	DOTs, MPOs	5/20/2018	11/16/2018
6. System Performance Measures: Congestion Mitigation and Air Quality Program (3 measures)			
<u>NHS</u> : Annual Hours of Peak Hour Excessive Delay Per Capita	DOTs, MPOs	5/20/2018	11/16/2018
<u>NHS</u> : Percentage of Non- SOV Travel	DOTs, MPOs	5/20/2018	11/16/2018
<u>CMAQ Program Emissions</u> : Total Emission Reductions for each applicable criteria pollutant and precursor	DOTs, MPOs	5/20/2018	11/16/2018
7. Transit Asset Management (4 measures)			
<u>Rolling stock (Age)</u> : Percentage of revenue vehicles that have met or exceeded useful life	Transit Providers, MPOs	10/31/2017	Plan/TIP update
<u>Equipment (non-revenue) service vehicles (Age)</u> : Percentage of vehicles that have met or exceeded useful life	Transit Providers, MPOs	10/31/2017	Plan/TIP update
<u>Rail fixed-guideway (Condition)</u> : percentage of track segments, signal, and systems with performance restrictions	Transit Providers, MPOs	10/31/2017	Plan/TIP update
<u>Stations/ Facilities (Condition)</u> : The percentage rated below condition 3 on the TERM scale.	Transit Providers, MPOs	10/31/2017	Plan/TIP update
8. Transit Safety (4 measures)			
<u>Fatalities</u> : Total number and rate (per revenue vehicle mile) of reportable fatalities	Transit Providers, MPOs	TBD	TBD + 1 year
<u>Injuries</u> : Total number and rate of reportable injuries	Transit Providers, MPOs	TBD	TBD + 1 year
<u>Safety Events</u> : Total number and rate of reportable Derailments, Collisions, Fires, and Evacuations	Transit Providers, MPOs	TBD	TBD + 1 year
<u>System Reliability</u> : Mean distance between Major and Other Mechanical System Failures	Transit Providers, MPOs	TBD	TBD + 1 year



TABLE 2: MATRIX OF RESPONSIBLE AGENCIES FOR PERFORMANCE BASED PLANNING AND PROGRAMMING

	DDOT, MDOT, VDOT	NPS, MdTA, MWAA	Arlington, Alexandria, Charles, Fairfax, Frederick, Loudoun, Montgomery, Prince George's, Prince William	DDOT, DRPT, MTA, PRTC, VRE, WMATA	TPB
Highway Safety	√				√
Highway Pavement and Bridge Condition	√	√	√		√
System Performance (NHS Congestion, Freight, and CMAQ Program)	√				√
Transit Safety			√	√	√
Transit Asset Management			√	√	√





National Capital Region
Transportation Planning Board

November XX, 2017

The Honorable **Paul Trombino III**
Administrator
Federal Highway Administration (FHWA)
U.S. Department of Transportation (USDOT)
1200 New Jersey Avenue, SE
Washington, DC 20590

Subject: Comments on the National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program [Docket No. FHWA-2017-0025]

Dear Administrator Trombino,

The National Capital Region Transportation Planning Board (TPB), the metropolitan planning organization (MPO) for the Metropolitan Washington Area, appreciates your efforts and those of FHWA staff to provide opportunities for commenting on the National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program. Our comments on the Notice of Proposed Rulemaking (NPRM) to repeal the Greenhouse Gas (GHG) measure are provided for your consideration below.

The TPB supports retaining the currently enacted GHG measure. The TPB believes that this rule is a good start that aids in increasing the accountability and transparency of the Federal-aid highway program and provides a framework to support improved investment decision making through a focus on performance outcomes for key national transportation goals.

The TPB works closely with the Metropolitan Washington Council of Governments (MWCOC), the region's partnership hub for local governments. MWCOC has set aspirational goals for reducing the region's emissions of greenhouse gases (GHG) through 2050, starting with the National Capital Region Climate Change Report in 2008. The TPB has endorsed these goals (Resolution 10-2015) and also works closely with other regional policy boards, including the Metropolitan Washington Air Quality Committee (MWAQC) and Climate, Energy, and Environment Policy Committee (CEEPC). These regional bodies affirmed these goals in 2014 and established a Multi-Sector Working Group to work on plans to reduce greenhouse gases. Efforts continue among all sectors, including the transportation sector, to develop and implement action plans to reduce greenhouse gases. Plans and actions to reduce GHG are therefore an important objective of the TPB and forecasting GHG emissions is integral to our region's metropolitan transportation planning. These efforts will be well complemented by the currently enacted federal rule establishing Percent Change in Tailpipe Carbon Dioxide Emissions on the National Highway System (also known as the GHG measure) as a performance measure under the FAST Act's Performance Management system.

Questions from the NPRM

1. Whether data are available to more directly measure GHG emissions effects of NHS projects undertaken by States or MPOs.
2. Whether the data used to calculate the measure are precise enough to meet the needs of a performance based approach.
3. Whether the measure provides meaningful utility for assessment of environmental performance of the NHS by States and MPOs.
4. Information or data that would justify the utility of this measure relative to the increased burden on States and MPOs to report this information.
5. Input from States and MPOs on the potential costs imposed by the addition of this measure.

Question 1. Whether data are available to more directly measure GHG emissions effects of NHS projects undertaken by States or MPOs.

The TPB currently forecasts the mobile source GHG emissions of the region's transportation network represented on the regional travel demand model as a by-product of its air quality conformity determination process. These emissions estimates are developed using EPA's Motor Vehicle Emissions Simulator (MOVES) model. The resulting measures of total and per capita mobile source greenhouse gas emissions have been part of the TPB's long range plan performance analysis for several years, and are considered by the board in its approval of the long range metropolitan transportation plan.

The national performance management measure of measuring GHG emissions by calculating tailpipe CO₂ emissions on just the National Highway System (NHS), would produce an estimates that would be a subset of the regional GHG emissions estimates and generated from a different set of data. However, the results should be comparable in direction and magnitude.

The final rule notes that there are many different methods of estimating GHG emissions and that some methods require more detailed and NHS specific data. The TPB has not, at this time, identified all of the desired data to more directly measure or calculate GHG emissions on just the NHS system. The TPB, however, has access to data that could be used to estimate changes in GHG emissions using other simplified methods outlined in the final rule. However, the use of a performance measure that is nationally comparable among States and MPOs that receive federal CMAQ funds is a desirable goal for performance-driven decision-making, and it is recommended that the FHWA establish a common basis for such comparable performance measurement of GHG emissions.

Question 2. Whether the data used to calculate the measure are precise enough to meet the needs of a performance based approach.

The national performance management measures, in general, must apply throughout the United States to provide information and comparability. Traffic operations in general can be influenced by local conditions, and in this the GHG measure is similar to many of the other national performance management measures. Accordingly, the data would appear to be precise enough to provide valuable information to decision-makers.

In addition, the TPB endorses the concept of performance management as a process, in which data is used to inform decision-making, rather than performance measurement focused on the data.

Accordingly, measures which inform performance management decision-making are preferable. Such measures need to accurately reflect any changes made in inputs, so that output follows input and enables outcome based decision-making. A focus solely on precision is not as important to the performance based approach. Additionally, the techniques and costs for gathering travel data continues to evolve and so will the ability of the data to better reflect local conditions.

Question 3. Whether the measure provides meaningful utility for assessment of environmental performance of the NHS by States and MPOs.

The NHS is a very important part of a region's transportation network and this is particularly true in the TPB's planning area. The TPB's member jurisdictions invest considerable amount of funds on its NHS system. The TPB's planning area is currently in non-attainment of the federal Ozone NAAQS and a recipient of federal CMAQ funds. These funds are invested to affect travel and reduce emissions. With a considerable amount of the region's travel happening on the NHS it is important to be able to assess environmental performance of the NHS. Additionally, given the importance the TPB and other regional policy boards place on GHG emissions reductions, the tailpipe emissions measure would be a very useful measure to inform the region's investments with regard to the environmental improvements. While the TPB will continue to use its regional systemwide GHG emissions estimates measure in regional planning, having the federal GHG measure as a commonly defined and available GHG performance measure across the nation would provide useful comparative information for the TPB.

Question 4. Information or data that would justify the utility of this measure relative to the increased burden on States and MPOs to report this information.

Having a commonly defined and available GHG performance measure across the nation would provide useful comparative information for the TPB. Accordingly, the TPB endorses the establishment of common, national data definition, collection, forecasting, and reporting, to enable comparative analysis and informed decision-making. There are no penalties or impacts from the national performance management measures for MPOs (or for the States except in potential allocation of safety and preservations funds), a principle which the TPB heartily endorses. However, the benefit of information on GHG emissions is important to many MPOs and States, and furthers the performance-driven planning process. Given the TPB's long range planning activities as a Travel Management Area (TMA) and a non-attainment area together with its proactive work on GHG emissions, the TPB does not view the additional work to implement the GHG as a considerable burden.

Question 5. Input from States and MPOs on the potential costs imposed by the addition of this measure.

As noted above as a TMA and a non-attainment area the TPB currently deploys considerable resources to comply with all of the federal and state planning regulations. The TPB's current work activities does include estimating GHG emissions. Given the interest of the members of the TPB, MWCOG, and other regional policy boards in GHG reductions, it is anticipated that this MPO will continue its GHG emissions work for the region regardless of whether this performance measure is part of the required national performance measures. Accordingly, there would be limited costs imposed by this useful GHG measure.

Mr. Paul Trombino III
November XX, 2017

In summary: The TPB recognizes the importance of the performance provisions of MAP-21 and the FAST Act as set forth in the May 2016 final rule on Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). We welcome the move towards a performance-driven, outcome based approach to transportation planning. The TPB supports retaining the currently enacted GHG measure and believes that this rule aids in increasing the accountability and transparency of the Federal-aid highway program and provides a framework to support improved investment decision making through a focus on performance outcomes for key national transportation goals.

Please feel free to contact the TPB's staff Director, Mr. Kanathur Srikanth at ksrikanth@mwkog.org or 202-962-3257 if there is any additional information or support that the TPB can provide in the development and implementation of the performance-based planning and programming regulations.

Sincerely,

Bridget Donnell Newton
Chair, National Capital Region
Transportation Planning Board