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 this agenda and preparing recommendations for the MAP-21 Target Setting Framework Group.

Target Setting Technical Team: 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.

Purpose of reporting requirements

In July 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) became law. The law included 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.

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/WSDOT. 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.

For more information

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Washington State Department of Transportation

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

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MAP-21 performance measures by program area

<table>
<thead>
<tr>
<th>Measure</th>
<th>Combined Rule (PM3)</th>
<th>National Freight Movement Program</th>
<th>Congestion Mitigation &amp; Air Quality Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of person-miles traveled on the Interstate System that are reliable</td>
<td>77%</td>
<td>77%</td>
<td>N/A*</td>
</tr>
<tr>
<td>Percent of person-miles traveled on the Non- Interstate NHS System that are reliable</td>
<td>77%</td>
<td>N/A*</td>
<td>61%</td>
</tr>
<tr>
<td>Percent of persons traveling vehicle (SOV) travel in Seattle urbanized area (NHS)</td>
<td>32%</td>
<td>32.8%</td>
<td>33.2%</td>
</tr>
<tr>
<td>Peak hours of Excessive Delay per capita in Seattle urbanized area (NHS)</td>
<td>1.63</td>
<td>1.70</td>
<td>1.75</td>
</tr>
<tr>
<td>Coast Travel Time Reliability (TTTR) Index</td>
<td>1.63</td>
<td>1.70</td>
<td>1.75</td>
</tr>
<tr>
<td>Peak of person-miles traveled during the Mid-Performance Period Progress Report due</td>
<td>77%</td>
<td>77%</td>
<td>61%</td>
</tr>
<tr>
<td>2-year target</td>
<td>3-year target</td>
<td>4-year target</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Federal rule allows states 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 and October 1, 2020, and October 1, 2022. 2 Base emissions are for the four-year period 2015-2018 as reported in the CMAQ Public Access System. 3 These targets are not required for the 2-year Mid-Performance Period Progress Report.

Important dates for PM3 performance measures

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1, 2017</td>
<td>First Performance Period for Emissions Reduction Measure starts</td>
</tr>
<tr>
<td>January 1, 2018</td>
<td>Performance Period for First Performance Period</td>
</tr>
<tr>
<td>May 20, 2018</td>
<td>States set Performance Targets for First Performance Period</td>
</tr>
<tr>
<td>November 16, 2018</td>
<td>NPOs accept WSDOT targets or set own</td>
</tr>
<tr>
<td>October 1, 2018</td>
<td>Baseline Performance Period Report due</td>
</tr>
<tr>
<td>October 1, 2020</td>
<td>Mid-Performance Period Progress Report due</td>
</tr>
<tr>
<td>March 31, 2021</td>
<td>NPOs target adjustments due if needed</td>
</tr>
<tr>
<td>October 1, 2021</td>
<td>First Performance Period for Emissions Reduction Measure ends</td>
</tr>
<tr>
<td>October 1, 2022</td>
<td>Full-Performance Period Progress Report due (4-year)</td>
</tr>
</tbody>
</table>

For more information

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### 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 (LOTTTR) is defined as the ratio of longer travel times (60th 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 vehicle volumes and occupancy. 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 (PHEED) 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 that overlaps within an applicable urbanized area must coordinate on a single, unified target and report on the measures for that area May 20, 2018.

#### Non-Single Occupancy Vehicle Travel

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).
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

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.

To calculate the percent of Non-Single Occupancy Vehicle travel

The rule initially applies to urbanized areas of more than one 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 May 20, 2018.

#### 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, it is 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.