

PERFORMANCE-BASED PLANNING AND PROGRAMMING

Planning – Programming – Performance

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Presentation Outline

- Overview of Performance-Based Planning and Programming (PBPP)
 - Transportation Project and Planning Process
 - Coordination
- Performance Measures
 - PBPP Performance Measures
 - PBPP Calendar
- TPB Target Setting
 - Highway Safety Targets
 - CMAQ Program Targets
 - System Performance Targets
 - Infrastructure (Asset) Targets
- Timeline/What's Next



What is Performance-Based Planning and Programming (PBPP)?

- The PBPP process is a requirement for MPOs, States, and providers of public transportation originating in the federal surface transportation **MAP-21** and **FAST Acts**.
- PBPP is the **application of performance management** within the planning and programming process **to achieve desired performance outcomes** for the multimodal transportation system. PBPP includes a range of activities and products:
 - Development of **long range transportation plans**
 - Federally-required plans and processes -- such as Strategic Highway Safety Plans (SHSPs), Asset Management Plans, the Congestion Management Process (CMP), and Transit Agency Asset Management and Safety Plans
 - Programming documents, including State and metropolitan Transportation Improvement Programs (STIPs and **TIPs**)



Enhanced Regional Transportation Project Planning and Implementation Process



Visualize 2045 and Federal PBPP

- A paradigm shift in funding decisions:
 - Investment decisions based on outcomes rather than program eligibility alone
 - Establish performance targets for desired outcomes
 - Data-driven approach for selecting and prioritizing projects for funding
 - Develop investment plan to achieve performance targets
- Monitoring performance outcomes:
 - Collect performance data
 - Assess changes to determine progress towards performance targets
 - Inform investment plan to make appropriate for future funding decisions
- The new federal PBPP process must be reflected in Visualize 2045 and the TIP
 - Improve investment decision-making
 - Improve return on investments and resource allocation
 - Improve system performance
 - Increase accountability and transparency



TPB Coordination Activities

Continuing collaboration with key Virginia, Maryland, and District of Columbia partners

- Compiling regional performance measure data consistent with state and transit agency data
- Ongoing coordination with State DOTs and transit agencies as they develop their respective target setting methodologies
- Ongoing engagement with the TPB and the Technical Committee
- Developing staff recommendations on regional safety target setting methodology - and corresponding targets - based on coordination with our member states and this committee
- TPB policy board, including local elected officials, will take target-setting action



Federally Prescribed Performance Measures

	GOAL AREAS	PERFORMANCE MEASURES
1	SAFETY	<ul style="list-style-type: none"> • Highway - Traffic Fatalities and Serious Injuries • Transit – Fatalities and Injuries; Derailments; Collisions; Fires; Evacuations for life safety
2	INFRASTRUCTURE (ASSET) CONDITION	<ul style="list-style-type: none"> • Roadway – Pavements and Bridges • Transit – Revenue vehicles, Non revenue equipment, Track infrastructure, and Facilities/Stations
3	CONGESTION REDUCTION	Delay per capita
4	SYSTEM RELIABILITY	<ul style="list-style-type: none"> • Highway - Reliable Travel Times • Highway - Peak Hour Travel Times Meets Expectations • Transit – Major / Other Mechanical System Failures
5	FREIGHT MOVEMENT AND ECONOMIC VITALITY	<ul style="list-style-type: none"> • Reliable Truck Travel Times • Interstate System Mileage Uncongested
6	ENVIRONMENTAL SUSTAINABILITY	Criteria Pollutants Emissions Reduced

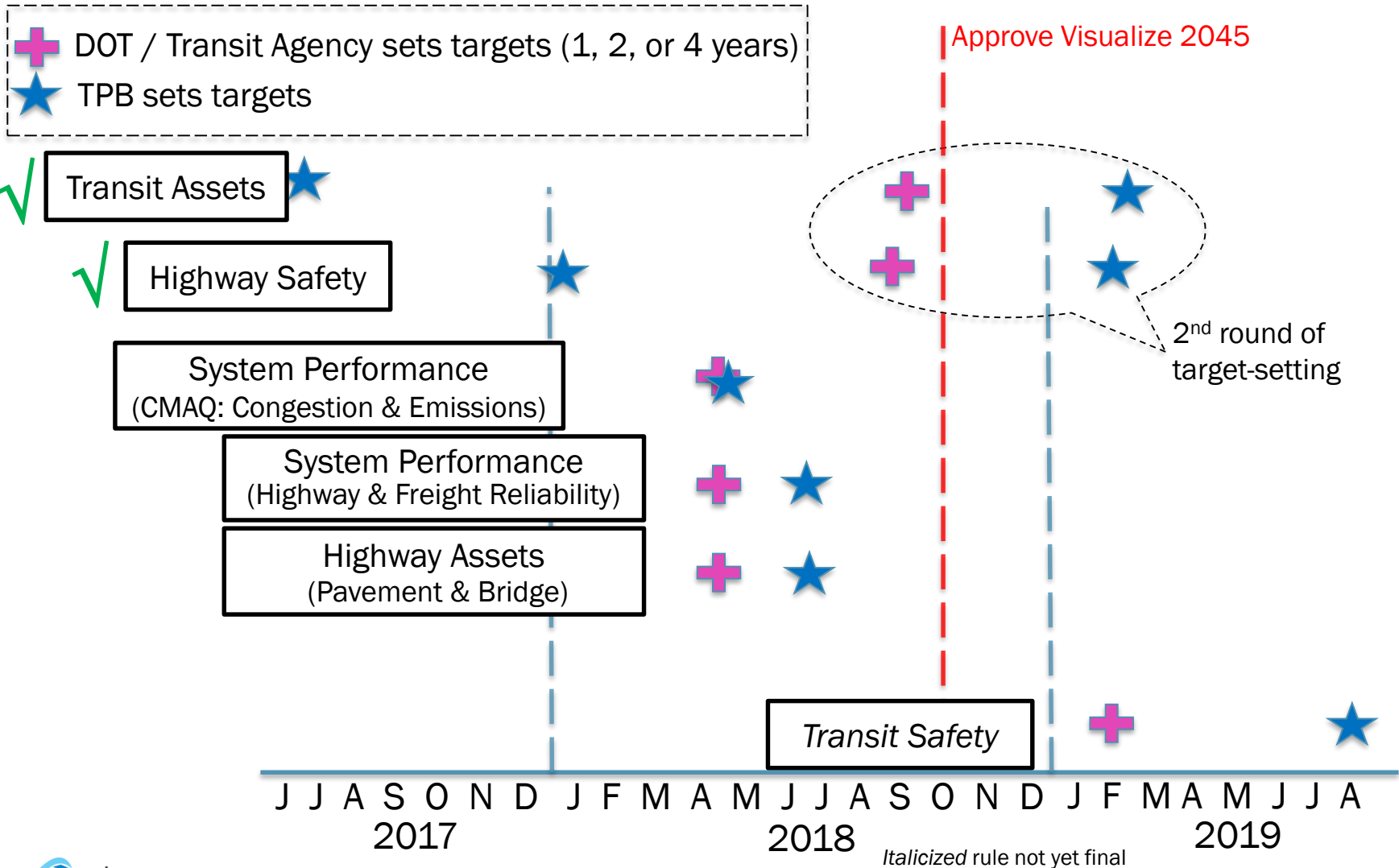
PBPP Performance Areas

The federal PBPP rules have five main areas of performance planning for which the TPB must set targets and program projects accordingly:

- Transit Assets
- Highway Safety
- System Performance (Highway, Freight, CMAQ Program)
- Highway Assets
- Transit Safety



PBPP Calendar: 2017-2019



Highway Safety Performance Measures

Performance Measure	2014-2018 Target
Number of fatalities	<u>253.0</u>
Rate of fatalities per 100 million vehicle miles of travel	<u>0.588</u>
Number of serious injuries	<u>3,007.3</u>
Rate of serious injuries per 100 million vehicle miles of travel	<u>6.768</u>
Number of nonmotorist fatalities and serious Injuries	<u>528.8</u>

- Implementing Agency (State DOTs) – Set 2018 targets by August 31, 2017
- TPB – Approved 2018 targets on January 17, 2018
- Annual requirement: TPB’s 2019 targets will need to be approved January 2019

System Performance: CMAQ Program (Congestion Mitigation and Air Quality)

	Performance Measures
CMAQ Program: Traffic Congestion	(5) Peak Hour Excessive Delay – Annual hours of peak hour excessive delay per capita
	(6) Mode Share - Percent of non-SOV Travel on the NHS
CMAQ Program: Emissions Reduction	(7) Emission - CMAQ-funded projects on-road mobile source total emission reductions for each applicable criteria pollutant and precursor

- State DOTs – establish Targets on May 20, 2018
- TPB (MPO) – set Targets by October 1, 2018
- TPB Board Approval – June 20, 2018 (Tentative)

System Performance: CMAQ Program (Congestion Mitigation and Air Quality)

Performance Measures for the Washington DC-MD-VA urbanized area	CY 2018 - 2019 Two Year Target	CY 2018 - 2021 Four Year Target
Peak Hour Excessive Delay (PHED)	Not Required	26.7 Hours**
Mode Share (Non-SOV)	36.9%	37.2%

Total Emissions Reductions for the TPB portion of the Washington DC-MD-VA nonattainment area		FFY 2018 - 2019 Two Year Target	FFY 2018 - 2021 Four Year Target
	Volatile Organic Compounds (VOCs)	1.8376 Kg/Day	2.1950 Kg/Day
	Nitrogen Oxides (NOx)	4.0194 Kg/Day	4.7026 Kg/Day

System Performance: Highway and Freight

	Performance Measures
National Highway System	(1) Interstate Travel Time Reliability (TTR) - Percent of person-miles traveled on the Interstate System that are reliable
	(2) NHS (Non-Interstate) Travel Time Reliability (TTR) - Percent of person-miles traveled on the non-Interstate NHS that are reliable
	Performance Measures
Freight Movement	(4) Freight Reliability (TTTR) - Percent of the Interstate System Mileage providing for Reliable Truck Travel Times

- State DOTs – Establish Targets on May 20, 2018
- TPB – set Targets by October 1, 2018
- TPB Board Approval – July 18, 2018 (Tentative)



System Performance: Highway and Freight

Highway and Freight	CY 2018 - 2021 Four Year Target
<p>TTR - Interstate Percent of person-miles traveled on the Interstate System that are reliable</p>	<p>58.5%</p>
<p>TTR - Non-Interstate NHS Percent of person-miles traveled on the non-Interstate NHS that are reliable</p>	<p>72.7%</p>
<p>TTTR Index Ratio of the Interstate System Mileage providing for Reliable Truck Travel Times</p>	<p>2.12</p>



Infrastructure (Asset) Condition - Pavement and Bridges

	Performance Measures
Pavement Condition	(1) Percentage of pavements on the Interstate System in Good condition
	(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) Percentage of pavements on the NHS (excl. Interstate System) in Poor condition.
Bridge Condition	(5) Percentage of NHS Bridges Classified as in Good Condition
	(6) Percentage of NHS Bridges Classified as in Poor Condition

- Implementing Agency (State DOT, NHS Owners) – Establish Targets by May 20, 2018
- TPB (MPO) – Set Targets by October 1, 2018. Coordination is ongoing for the development of TPB Regional Targets

Coordination of Performance Targets with Metropolitan Planning

- MPOs will annually report targets to respective state DOTs in a manner that is documented and mutually agreed upon
- Targets will begin to be reported no more than 180 days after state DOTs have set their targets
- Long-range Metropolitan Transportation Plan shall include:
 - (1) a description of the performance measures and targets; and
 - (2) a report evaluating the condition of the system(s) with respect to the MPOs performance measures and targets, including progress achieved.
- TIPs must include a discussion of the anticipated effects of the TIP toward achieving the performance targets by linking investment priorities to those performance targets.



Board Timeline for Federal PBPP

Completed PBPP actions:

- June 2017 – approved Transit Asset Management (TAM) targets
- January 2018 – approved Highway Safety targets
- February 2018 – refresh board on overall PBPP requirements
- April 2018 – brief on draft CMAQ Program targets (traffic congestion, mode share, emission reductions)

Upcoming board activities:

- June 2018 – approve CMAQ Program targets
- June 2018 – brief on draft Highway Asset (pavement and bridge condition) targets, highway System Performance (travel time reliability, freight reliability) targets
- July 2018 – approve Highway Asset and highway System Performance targets
- ❖ All targets will be incorporated into Visualize 2045



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