

# Performance-Base Planning and Programming

## Introduction

MAP-21 and FAST ACT requires incorporation of Performance-Base Planning and Programming (PBPP) in the development of the Metropolitan Planning Organization (MPO) Long-Range Transportation Plans (LRTP) and Transportation Improvement Plans (TIP). The Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning; Final Rule further defined the TIP shall include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the 23 CFR 490 performance measures targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets (23 CFR 450.326(d)).

The Duluth-Superior Metropolitan Interstate Council will utilize its planning and programming of projects to contribute to the accomplishments of statewide safety performance targets. The approach at this time is to adopt and contribute toward the statewide targets, that MnDOT adopts, and follow their lead. This approach seemed the most appropriate at this time as setting targets for the Duluth-Superior MPO would be difficult and burdensome. With limited staff and resources, MPO level performance planning and measurements would be difficult. It is unknown at this time how much time staff will be working on Performance-Base Planning and Programming, as statewide target setting and other statewide implementation are still ongoing. As our understanding of Performance-Based Planning becomes clearer, the Duluth-Superior MIC may decide at a later time to set its own targets.

### 23 USC 150: National performance measure goals are:

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair
- **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.
- **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment
- **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices  
<https://www.fhwa.dot.gov/tpm/about/goals.cfm>

### MAP-21/Fast Act Performance Measures as established in 49 USC 625 and 23 CFR 490 are:

- **Transit**
  - Rolling Stock: The percentage of revenue vehicles (by type) that exceed the useful life benchmark (ULB).
  - Equipment: The percentage of non-revenue service vehicles (by type) that exceed the ULB.
  - Facilities: The percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model (TERM) Scale.
  - Infrastructure: The percentage of track segments (by mode) that have performance restrictions. Track segments are measured to the nearest 0.01 of a mile.

- **Safety**
  - Number of fatalities
  - Fatalities per 100 million vehicle miles traveled
  - Number of serious injuries
  - Serious injuries per 100 million vehicle miles traveled
  - Number of non-motorized fatalities and non-motorized serious injuries
- **Infrastructure**
  - Percentage of pavements of the Interstate System in Good condition
  - Percentage of pavements of the Interstate System in Poor condition
  - Percentage of pavements of the non-Interstate NHS in Good condition
  - Percentage of pavements of the non-Interstate NHS in Poor condition
  - Percentage of NHS bridges classified as in Good condition
  - Percentage of NHS bridges classified as in Poor condition
- **System Performance on NHS**
  - Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the Interstate that are reliable
  - Non-Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the non-Interstate NHS that are reliable
- **Freight Movement**
  - Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index
- **CMAQ—Congestion Reduction (as applicable)**
  - ~~Peak Hour Excessive Delay (PHED) Measure: Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita~~
  - ~~Non-Single Occupancy Vehicle Travel (SOV) Measure: Percent of Non-Single Occupancy Vehicle (SOV) Travel~~
  - ~~Emissions Measure: Total Emission Reductions~~

## Approved Targets for Performance Measures by the MPO

### PM #1 – Safety

For the Minnesota portion of the MIC area, the MIC Board passed Resolution #18-02 on January 17, 2018, adopting the MnDOT Highway Safety Improvement Program (HSIP) Performance Measure Targets for 2018, as follows:

**Number of Traffic Fatalities = 375**

**Rate of Traffic Fatalities = 0.62 per 100 million VMT** (*Vehicle Miles Traveled*)

**Number of Serious Injuries = 1935**

**Rate of Serious Injuries = 3.19 per 100 million VMT** (*Vehicle Miles Traveled*)

**Number of Non-Motorized Fatalities & Serious Injuries = 348**

The MIC will coordinate with MnDOT on future actions and discussion of the other performance measure targets (i.e. pavement, bridge, system performance targets) needing to be amended into TIPs or added to future TIPs, where applicable. The MIC will coordinate with the Duluth Transit Authority on future actions and discussion of transit asset management targets. At this time, it is the MIC's intention to continue to support MnDOT's and DTA's targets. MnDOT is required to adopt PM2 and PM3 targets by May 20, 2018. The DTA is required to adopt transit asset management targets by October 1, 2018. The MIC is required to either set its own targets or support the state/DTA targets within 180 days of state/DTA adoption.

## **MPO's Performance-Base Planning and Programming processes**

Federal performance-based planning requirements direct metropolitan planning organizations to establish performance measures for safety, pavement, bridge, reliability, freight, CMAQ, and transit asset management and safety. The intent of these provisions is to demonstrate how federally-funded investments are helping to meet national, state and local transportation performance targets. The Long Range Transportation Plan (LRTP) will provide the overall long-term objectives for guidance to help the MPO annually set performance measures and future projects to positively influence these measures. More information on the LRTP can be found at - <http://dsmic.org/planning/long-range/>. The MIC's Transportation Improvement Program (TIP) project solicitation and projects within the TIP will work to deliver efforts in meeting the adopted performance based measures. The TIP project selection process has established TIP project scoring criteria that awards points to projects that incorporate the MIC's LRTP and other planning studies. In recent years, the MIC has not scored projects due to smaller federal funding amounts and lack of competition between projects. The MIC plans to revamp the TIP solicitation and scoring process as part of the LRTP update. MIC performance based planning information can be found at <http://dsmic.org/study/performance-measures/>.

## **Anticipated effect of investments towards established performance measures**

Jurisdictional entities will analyze the adopted performance based measures during consideration of project development. This review will enable engineers and local planning staff opportunities to determine how different aspects of project scoping and development scenarios may positively or negatively impact performance measures locally.

The 2018-2021 Duluth Area TIP projects are anticipated to contribute positively to the overall statewide safety performance targets. Projects in the TIP include safety improvements for all modes by reducing known conflicts, adding new bicycle and pedestrian infrastructure, improving technology for advanced warnings on the interstate, and more. Projects in the TIP are not anticipated to negatively impact safety within the MPO boundaries. Additional data and resources, if available, would help the MPO and its partnering jurisdictions better achieve performance targets.