

CHAPTER II

Performance Management



Introduction

The 2016 Central Massachusetts Long Range Transportation Plan includes performance management measures, primarily as a requirement of the state’s landmark transportation reform legislation signed in June 2009, but expanded with the current Moving Ahead for Progress in the 21st Century, also known as MAP-21. The Federal legislation creates a performance-based and multimodal program that focuses on national goals as a means to increase accountability and improve transparency¹. It is intended to improve the decision-making process through better informed planning and programming.

Increasingly, over the past two decades, transportation agencies have been utilizing “performance management”—a strategic approach that uses performance data to support decisions to help achieve desired outcomes for their multimodal transportation systems. Performance management is credited with improving project and program delivery, informing investment decision making, focusing staff on leadership’s priorities, and providing greater transparency and accountability to the public.

Performance-based planning and programming (PBPP) refers to transportation agencies’ application of performance management in their planning and programming processes. For MPOs, this includes a range of activities and products undertaken by a transportation agency, together with other agencies, stakeholders, and the public as part of the 3C Metropolitan Transportation Planning Process. This includes developing:

- Long-range transportation plans (LRTPs)
- Other plans and processes (including those that are federally required, such as Strategic Highway Safety Plans, Asset Management Plans, the Congestion Management Process, Transit Agency Asset Management Plans, and Transit Agency Safety Plans, as well as others that are not required)
- Programming documents, including state and metropolitan Transportation Improvement Programs (STIPs and TIPs)

The goal of PBPP is to ensure that transportation investment decisions—both long-term planning and short-term programming—are based on their ability to meet established goals.

The cornerstone of *Moving Ahead for Progress in the 21st Century’s* (MAP-21) highway program transformation is this movement toward performance- and outcome-based results.

¹ <http://www.fhwa.dot.gov/tpm/about/action.pdf>.

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States will invest resources in projects to achieve individual targets that collectively will make progress toward national goals.

The goals and objectives presented herein express the values and the spirit of the 2016 Central Mass LRTP, formally known as Mobility2040. MPO investments over the life of the Mobility2040 plan commit funding to specific projects and reserve future funding for different project types through investment programs. In reporting the benefits of specific projects, MPO staff conducted project-level assessments to determine each project's impact in advancing MPO goals through performance measures.

The goals, objectives and performance measures reflect the vision of the plan set in the earlier chapter of the plan. The objectives and the performance measures that are included in this plan helps solidify the performance based planning process for the Central Mass region. The performance measures presented is a first attempt to set measures and targets to achieve the goals and objectives of the plan. As federal and state agencies finalize the goals and performance measures, staff expects to add and update performance measures in the next few years to better align with the federal and state goals and to capture the essence of the goals and objectives presented below.

Goal 1: Reduce Congestion and Improve Mobility for all modes

Objective 1 - Coordinate Improved Incident Management (Highway & Transit).

- Facilitate group to improve incident detection & clearance time. Have 1 meeting per year.

Objective 2 - Enhanced Traveler Information (ITS).

- Facilitate the installation of information systems/kiosks at major intermodal locations, such as Union Station. 2 locations every 5 years.
- Expand I-290 ITS Real Time Traffic Management (RTTM). RTTM on I-395 and Route 146 also. Install 2 Variable Message Boards (VMB) every 5 years.

Objective 3 - Improve Corridor Management Integration.

- Increase % of overall bus trips with an on time % greater than 90% (leaving hub and end of line). 10% increase over 10 years.
- Install Transit Signal Priority – 5 signals every 5 years.
- Reduce average travel delays along identified congested major roadway segments; 2 segments every 5 years.

- Improve 2 of the top 20 congested intersections every 5 years to a LOS of “D” or better.

Objective 4 - Improved Transportation Accessibility for all modes.

- Increase the number of ADA-compliant roadways and intersections. 2 locations every 5 years.
- Improvement in the bicycle and pedestrian network within ½ mile of transit stations – for the top 10 high boarding and alighting locations. 2 locations every 5 years.
- Increase average frequency on core-routes to 10 minutes. 2 routes every 5 years.

Goal 2: Improve the Safety and Security of the region

Objective 1 - Reduce the number & rate of Fatal & Injury crashes in the region.

- Reduce number of fatalities by 10% in ten years.
- Reduce number of serious injuries by 10% in 10 years.
- Reduce rate of fatalities (fatalities per 100 million Vehicle Miles Traveled (VMT)) by 10% in 10 years.
- Reduce rate of serious injuries (serious injuries per 100 million VMT) by 10% in 10 years.

Objective 2 - Achieve Industry standards for preventable accidents for transit.

- Reduce preventable accident rate (accidents per 100,000 miles) by 10% in 5 years.

Objective 3 - Enhance Transportation Security Coordination Region wide.

- Conduct one regional workshop/tabletop exercise every year to advance Evacuation Planning.
- Continue involvement with MRPC & Statewide Evacuation Planning efforts.

Goal 3: Achieve State of Good Repair

Objective 1 - Maintain condition of on and off-system bridges.

- Decrease the number of “Structurally Deficient” bridges in the region by 10% every 10 years.
- Decrease the number of “Functionally Obsolete” bridges in the region by 10% every 10 years.

Objective 2 - Maintain the condition of the region’s roadways.

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- Rehabilitate 25 miles of pavement over 10 years that are in poor or failed pavement condition, including roadways that accommodate bicycle lanes.
- Improve 10% of sidewalks that are in poor or very poor condition over 10 years.

Objective 3 - Maintain fixed route and paratransit vehicles in state of good repair.

- Replace WRTA fixed route vehicles on a 12-year replacement schedule.
- Replace WRTA paratransit vehicles on a five-year replacement schedule.

Goal 4: Increase Transportation Options and Promote Healthy Modes

Objective 1 - Increase the share of transit, bicycling & walking in the region.

- Triple walk/bike/transit share in Worcester by 2040.
- Double walk/bike/transit share in urbanized areas outside of Worcester by 2040.

Objective 2 - Expand the walk/bike network in the region.

- Expand bicycle infrastructure in the region by 50 miles by 2040.
- Increase bicycle parking at public facilities in the next five years.
- Improve pedestrian network within ½ mile of the top 10 high activity transit stops.
- Identify bicycle/pedestrian/transit gaps in the region.

Objective 3 - Work with member communities to implement Complete Streets policies.

- 10% of communities in the region have a local Complete Streets policy over 10 years.

Goal 5: Reduce Greenhouse Gas and Promote Sustainable practices

Objective 1 - Encourage compact and mixed use development where possible.

- Each four year TIP will include at least one project that supports development of a regional Priority Development Area (PDA).
- Include criteria to the TIP scoring system to consider the effects of a proposed project on regional PDAs and Priority Preservation Areas (PPAs).
- Discourage capacity building at low density areas (less than 4000 persons/sq mile or 1000 jobs/sq mile).

Objective 2 – Avoid/Minimize/Mitigate Negative Environmental effects.

- All proposed projects must be included as part of all TIP Environmental screening to determine opportunities for avoidance, minimization, and mitigation of impacts.

- Identify vulnerable infrastructure susceptible to climate change now and add scoring criteria in the TIP for future years.

Objective 3 - Reduce GHGs generated by Auto and Transit in the region.

- Maintain age of transit vehicles per FTA standards (6 years for buses and 5 years or 100,000 miles for vans).
- Institute one new Park and Ride lot in each five year period for Transit & TDM along congested corridors.
- One percent VMT reduction in each 5 years period.

Goal 6: Equitable Transportation for all populations

Objective 1 - Provide access to essential services; minimize burdens and maximize benefits associated with low-income and minority areas.

- Increase the number of ADA-compliant intersections by 10% over 10 years.
- Improve traveler information at Union Station complex by installing Information Systems/Kiosks.
- Improve outreach efforts by facilitating at least one open house/community sessions across the region every year.
- Increase multimodal access to job opportunities, health care, education, recreation, healthy food and affordable housing in two EJ or vulnerable population neighborhoods in 5 years.
- Inventory the bicycle and pedestrian network within a ½ mile of the top 10 transit boarding locations in the next two years.
- Expand transit/paratransit coverage in areas that lack adequate transit service with EJ population and other vulnerable populations. 2 routes every 5 years.

Objective 2 - Consider Geographic Equity of transportation projects across the region.

- Maintain an average fleet age of 5-6 years for transit vehicles in the region.
- Equity (based on distribution of projects) in sub-regional project programming (by mode) at least one TIP project over each five year period.
- Equity for Environmental Justice identified areas (by mode). One project that benefits an EJ area over each five year period.

Goal 7: Improve Economic Vitality and Freight Movement***Objective 1 - Reduce delay along identified Freight Routes.***

- Expand ITS Real Time Traffic Management (RTTM) to include identified freight routes. Install 2 VMBs every 5 years.
- Reduce average travel delays along roadway segments of major freight routes. 2 every 5 years.

Objective 2 - Increase access to major employment centers.

- Improve the bicycle and pedestrian network near 2 major employment centers every 5 years.
- Increase frequency of bus routes traveling to/from 2 identified major employment centers every 5 years.

Objective 3 - Improve Safety along Freight Routes.

- Reduce injuries and fatalities along freight routes. 10% every 10 years.