

## Strategic Objective 2.2—Sustain Assets

*Reduce the costs of sustaining the Nation’s transportation infrastructure, equipment, facilities, and technology by instilling proven asset management practices through partnerships with other governmental agencies and infrastructure owners.*

### PERFORMANCE OVERVIEW

MAP-21 required States to develop and implement a risk-based asset management plan for the NHS to improve or preserve the condition of the assets and the performance of the system. States must address pavements and bridges but are encouraged to include all infrastructure assets within the highway right-of-way in their risk-based asset management plan. MAP-21 also established a new National Transit Asset Management System, requiring a strategic approach to asset management by grantees.

DOT will encourage its partners to adopt and use asset management practices through training and technical assistance, research and demonstration projects, and by adopting common performance measures and reporting systems.

**DOT Operating Administrations:** Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and Office of the Secretary (OST).

## Highway Infrastructure (FHWA)

### Overview

States are at various levels of maturity with respect to the use of asset management for highways and bridges. A survey conducted in 2013 found that only 31 percent of States had developed and were at various stages in implementation of an asset management plan. Nearly 40 percent of the survey respondents reported that their agencies do not appropriately balance preservation expenditures and capital improvements based on economic analysis. Under MAP-21, States are required to set targets for each of the proposed performance measures for the NHS discussed earlier and will be expected to make significant progress toward the achievement of the targets.

In addition, FHWA must establish minimum condition levels for Interstate pavements before allowing National Highway Performance Program (NHPP) funds to be spent to meet other needs. States are also required to maintain their NHS bridge conditions so that the percent of deck area on bridges categorized as structurally deficient does not exceed 10 percent for three consecutive years. In 2016, States must make a determination of compliance for bridges using these new minimum condition requirements. As States follow the Asset Management framework included in MAP-21, they are to consider the risks to their system and management of their assets for their whole life as they develop their investment strategies.

### Progress Update-Results

In February 2015, DOT published a *NPRM* to define the requirements for the process to develop risk-based asset management plans. The notice included the minimum standards States would use in developing and operating highway bridge and pavement management systems as called for in MAP-21.

FHWA co-sponsored transportation asset management peer exchanges and hosted a series of web-based information exchanges with State partners to advance principles and practices of asset management. FHWA also conducted a gap analysis in 15 States and reviewed asset management plans submitted by three pilot States. In addition, FHWA provided onsite technical assistance to States working through the process with senior managers and executives to establish an asset management program.

In addition, FHWA asset management initiatives included improved organization and reporting of infrastructure inventory and condition information, further evaluation of performance along a single Interstate corridor through several States, and sponsoring an evaluation of approaches to measure infrastructure performance. Details can be found at <http://www.fhwa.dot.gov/asset/pubs/hif13042.pdf>.

### Information Gaps

FHWA is continuing to present webinars and undertake other activities to advance the concepts and principles of asset management. Additional gaps will be identified as the rulemaking process continues and the *Final Rule* is issued that requires all States to develop an asset management plan. Gaps are anticipated in data collection, reporting, and data quality. Specifically, it is believed that the quality and uniformity of data collection and reporting of pavement cracking data can be improved. In addition, most States do not have formalized and documented risk management procedures for management of their pavement, bridges and

network. It is anticipated as States develop their asset management plans their processes will mature.

### **Key Strategies**

Currently, States select pavement and bridge projects and exercise considerable flexibility in prioritizing how funds are used. FHWA's role in programming projects is limited. FHWA is working collaboratively with AASHTO, Metropolitan Planning Organizations (MPOs), and other stakeholders to identify performance measures for pavements and bridges. Some of these activities and processes will involve a rulemaking.

FHWA will also continue working with its partners to develop pavement and bridge condition performance measures and targets that support Federal Lands and Tribal Transportation Program. Before allocations are made, Federal participants will be required to submit program proposals that describe how the national goals, as well as the goals of FLMA's, are supported by the use of the funds.

### **Next Steps**

FHWA will invest an estimated \$6 million to \$10 million to help States standardize the collection and analysis of the pavement and bridge data within the asset management plan, as well as develop risk and investment strategies. Most States use their pavement and bridge management systems to allocate the assigned dollars, not for investment decision making. This funding will help States establish standards for data collection and analysis. FHWA will assess those efforts approximately every two years after the *Final Rule* is published.

Specifically, NHPP program funds will be used to improve organization and reporting of infrastructure inventory and condition information by:

- Evaluating performance along a single Interstate corridor through several States;
- Evaluating approaches to measure infrastructure performance; and
- Continuing to monitor actions under established plans of corrective actions and improvement plans and will continue monitoring compliance with the established metrics under the National Bridge Inspection Program (NBIP) oversight process.

Performance Management Data Support Program (PMDSP) funds will be used to update the Highway Performance Monitoring System, or HPMS, to more realistically report on the condition of the IHS and NHS Pavements. The implementation of a performance-based Federal program will allow for a better understanding of how investments have led to the achievement of performance outcomes. This information will be used to develop improved predictive models that, when applied, will increase the successful return from transportation investments made to improve performance.

### **Responsible Officials**

Walter Waidelich, Associate Administrator for Infrastructure, Federal Highway Administration  
Michael Trentacoste, Associate Administrator for Research, Development and Technology, Federal Highway Administration

Timothy Hess, Associate Administrator for Federal Lands Highway, Federal Highway Administration.