Priority, Market-Ready Technologies and Innovations

Asset Management Guide

FINANCE

Problem: Transportation agencies need a better management approach for a new era

Since construction of the Nation's Interstate System has been completed, the emphasis within the transportation community has shifted from "build it" to "improve system performance." Thus, transportation agencies are under renewed pressure to demonstrate improvements in the performance of the transportation system and are being held increasingly accountable for funding decisions.

To help ease the transition from building new infrastructure to improving the performance of the existing system, many agencies are turning to Transportation Asset Management (TAM), which provides agencies with the tools and structure necessary to set goals, identify priorities, improve processes, and measure results to demonstrate improved performance. By focusing on the performance of the transportation system through the use of TAM, agencies will be able to increase customer satisfaction.

What is Transportation Asset Management?
TAM is not a software or database system. It is a decisionmaking process for allocating resources. TAM provides agencies with a strategic approach to managing transportation infrastructure and enables agency leadership to view the big picture before deciding how to deploy resources.

How does TAM work?
TAM relies on tools and information to analyze tradeoffs among investment options. This decisionmaking process recognizes that transportation assets have a user aspect in addition to a physical or engineering dimension. The focus is on system performance, rather than on how much money is spent or how many miles of roadway are improved.

Solution: Guide explains TAM techniques

The American Association of State Highway and Transportation Officials (AASHTO) has developed the *Transportation Asset Management Guide* as a resource for transportation agency leaders.

The guide explains TAM techniques and offers examples of good practice in four areas—policy development; planning and programming; program delivery; and information, analysis, and performance monitoring. The guide also includes a self-assessment tool to help agencies review their asset management practices and identify opportunities for improvement.

How can agencies learn more about TAM?
The Federal Highway Administration (FHWA) has developed a 1-day National Highway Institute (NHI) course titled Transportation Asset Management (NHI 131106), to familiarize senior- and mid-level managers from State departments of transportation (DOT) and other transportation agencies with the concepts, principles, and techniques outlined in the *Transportation Asset Management Guide*.

The course includes presentations, discussions, and exercises that address why asset

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Putting It in Perspective

- The Nation's highways are valued at more than $1.75 trillion.

- The total annual capital outlay to preserve and improve the highway system is more than $139 billion.

- TAM can help ensure that highway investments lead to improved system performance.

management is important for a transportation agency; the steps that an agency can take to implement and improve their asset management program; the tools that are available to apply the principles of TAM; and how to conduct a network-level tradeoff analysis.

Benefits

• Involves a strategic way of thinking that considers long-term consequences of investments.

• Focuses on a way of doing business that is performance driven, focused on customer satisfaction, and oriented toward a return on investment.

• Uses new analytical tools and new ways of applying old tools to better integrate data and support decisionmaking.

Successful Applications: Agencies are already moving toward an asset management approach

Many building blocks for TAM already exist in transportation agencies. Pavement management, bridge management, and information management systems, for example, provide the inputs necessary for TAM analyses. Most agencies have started the transition to TAM-based thinking through performance-based management and strategic planning. The guide and training course will help agencies build on these steps toward a TAM approach.

Deployment Statement

AASHTO's *Transportation Asset Management Guide*, along with the companion NHI course, illustrates asset management principles and identifies techniques and methods that will enable State DOTs to adopt this framework for managing their programs. By using the guide and participating in the NHI course, States will become more knowledgeable about good TAM practices and will have the confidence necessary to implement the practices within their agencies.

Deployment Goal

By 2009, 17 States will have successfully implemented the principles in the *Transportation Asset Management Guide* and/or have overcome the barriers to implementation. These States and others will use the TAM principles to help manage their programs to provide the most efficient and effective transportation system practicable based on available resources.

Deployment Status

As of November 2005, staff from nine States had participated in the NHI training course, including representatives from Connecticut, the District of Columbia, Michigan, New Hampshire, New Jersey, North Dakota, Oregon, Rhode Island, and Utah.

Additional Resources

For more information on TAM and the *Transportation Asset Management Guide*, visit **http://assetmanagement.transportation.org**.

Information on the NHI TAM training course is available at **http://www.nhi.fhwa.dot.gov/coursedesc.asp?coursenum=1130**.

For more information, contact:

Stephen Gaj, FHWA Office of Asset Management
Phone: 202–366–1336
E-mail: stephen.gaj@fhwa.dot.gov

Thay Bishop, FHWA Resource Center
Phone: 404–562–3695
E-mail: thay.bishop@fhwa.dot.gov

To request additional copies of this publication, contact:

Carin Michel, FHWA Resource Center
Phone: 410–962–2530
Email: carin.michel@fhwa.dot.gov

TaMara McCrae, FHWA Corporate Research and Technology
Phone: 202–493–3382
Email: tamara.mccrae@fhwa.dot.gov