Pavement Management for the New User

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Workshop Schedule and Content

- 1 Workshop Introduction
- 2 Introduction to Pavement Management
- 3 Inventory, Condition, and Work History
- 4 Treatments and Performance Models
- 5 Using Results
- 6 Implementation and Feedback



Schedule

- Definitions and concepts 0.5 hr.
- Inv., cond., and work history 1 hr.
- Break 20 mins.
- Treatments and models 30 mins
- Using the PMS 30 mins
- Break 20 mins.
- Imp. And Feedback 30 mins
- Total time about 3.5 hrs.

Workshop Protocols

- Questions are encouraged and participation is essential
- Learn from each other
- Limit distractions

Before Getting Started...

- Who has Pavement Management experience?
- Using what software?
- What data collection methods?
- What do you hope to learn today?



Introduction to Pavement Management

What it is, and what it isn't.....

Section 2 Topics

- Pavement management concept and definition
- Levels of analysis
- Pavement management components
- Links to asset management
- Benefits to pavement management

Activity

You're a pavement engineer at a local transportation department. I'm the Public Works Director. Give me two reasons why we should take the time and spend the money to implement a Pavement Management System.

Definitions – Pavement Management

- The effective and efficient directing of the various activities involved in providing and sustaining pavements in a condition acceptable to the traveling public at the least life cycle cost (AASHTO, 1985)
- A systematic process of maintaining, upgrading and operating a network of pavements and involves three major components: the pavement life cycle, the costs associated with this life cycle, and pavement management systems. (PavementInteractive.org)
- A program for improving the quality and performance of pavements and minimizing costs through good management practices (Dr. Nick Vitillo, NJ DOT)

Pavement Management Concept



Definitions – Pavement Management System

- A set of defined procedures for collecting, analyzing, maintaining, and reporting pavement data, to assist the decision makers in finding optimum strategies for maintaining pavements in serviceable condition over a given period of time for the least cost.
- A tool used to assist in making better decisions.

Impact of GASB 34

Introduced in June 1999, GASB 34 recommends that government agencies report the value of infrastructure assets in financial statements.

Pavements are long-lived capital assets, and there are specific procedures required to properly account for their value to meet GASB 34 requirements. Words like systematic and defensible are used.

Pavement management systems provide the tools necessary to evaluate pavement assets.

What it does, and doesn't do....

A Pavement Management System (PMS) provides objective information and useful data for analysis so that road managers can make more consistent, cost-effective, and defensible decisions related to the preservation of a pavement network.

While a PMS cannot make final decisions, it can provide the basis for an informed understanding of the possible consequences of alternative decisions.

A PMS does NOT make decisions, Managers DO!

Three Levels of Management

- Network Level
 - Collect condition information on the network
 - Analyze condition information
 - Provide information to upper management to assist in making strategic decisions
 - Provide information to other users to support project selection, design, and other types of analyses

Three Levels of Management

- Strategic (Policy) Level
 - Make policy decisions
 - Set funding allocations
 - Establish preservation strategies
 - Identify corridor projects
- Project Level
 - Determine final project recommendations
 - Design rehabilitation strategies
 - Conduct special studies

Decision Levels



Decision Levels



Network-Level Pavement Management Components



The Use of Pavement Management Analysis Results

- Identify and prioritize maintenance and rehabilitation needs
- Evaluate the impact of various programs through a comparison of conditions, backlog, or remaining service life
- Establish pavement condition targets
- Set budget needs
- Support asset management activities

Role of Pavement Management in an Agency



Keys to a Successful Program

- Data integration
- Data availability
- Buy-in of end users



Benefits of Pavement Management

- More efficient use of available resources
- Ability to justify funding needs
- More accurate and accessible information on the pavement network
- Ability to track pavement performance
- Ability to show impacts on condition
- Improved communication

AASHTO Pavement Management Guide (2001)