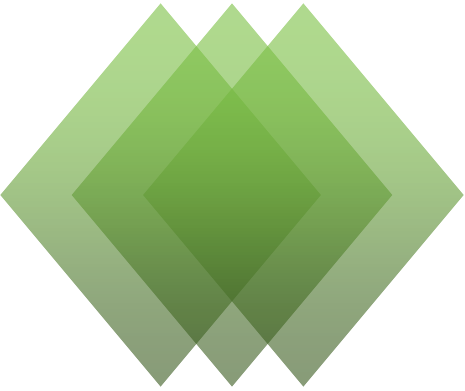


Pavement Management Roadmap



Angie Wolters, PE
Applied Pavement Technology, Inc.

Presentation at the MPPP Conference
October 28, 2010

Project Team

- FHWA sponsored project
- Project Team
 - APTech
 - SAIC
 - NCPP
 - Technical Panel
 - Workshop Participants



Background

- Over the past decade...
 - Advances in technology
 - Increased emphasis on managing assets
 - Reduced funding/purchasing power
 - Deteriorating network conditions
 - Shifting focus from expansion to preservation
- Roles of Pavement Management
 - Past: condition assessment, investment prioritization, and funding estimation
 - Present: asset management, strategic performance

Roadmap Objectives

- Address pavement management gaps
- Guide new research and workforce initiatives

Identify
short- and
long-term
goals

Identify
research
development

Identify
technology
transfer
needs

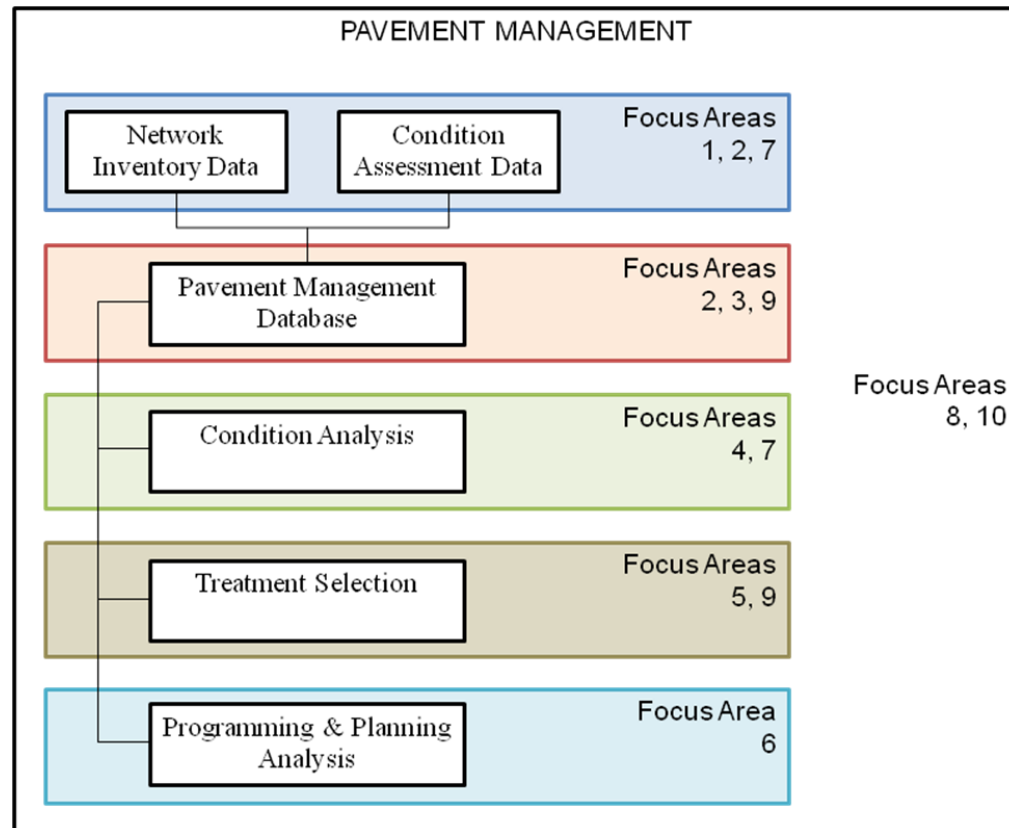
Project Summary

- Review literature
- Conduct regional workshops
- Summarize gaps and identify needs
- Prioritize needs statements
- Finalize and promote roadmap



Literature Review

- Identify state of the practice, current research initiatives and topics of concern
- Compile into 10 key focus areas



Focus Areas 1 - 5

1. Data collection techniques, equipment, and emerging needs
2. Data quality
3. Data storage integration
4. Performance modeling
5. Treatment selection



Focus Areas 6 - 10

6. Use of pavement management in the decision process
7. Changing needs and emerging technology in data collection and analysis
8. Quantifying the benefits of pavement management
- 9. Integrating pavement preservation and pavement management strategies**
10. Institutional issues and other factors influencing the use of pavement management

Regional Workshops

- Stakeholder involvement
- Number invited: 154
- Number attended: 88
 - 31 SHA
 - 14 FHWA
 - 7 Local agencies
 - 13 Private contractors
 - 6 Academia
 - 7 Team members



Needs Identified

- Total needs statements generated: 242
- Final number included in Roadmap: 47
- Themes
 1. Existing technology and tools
 2. Institutional and organizational issues
 3. Role of pavement management
 4. New tools, methodologies, and technology

Focus Area Needs Topics

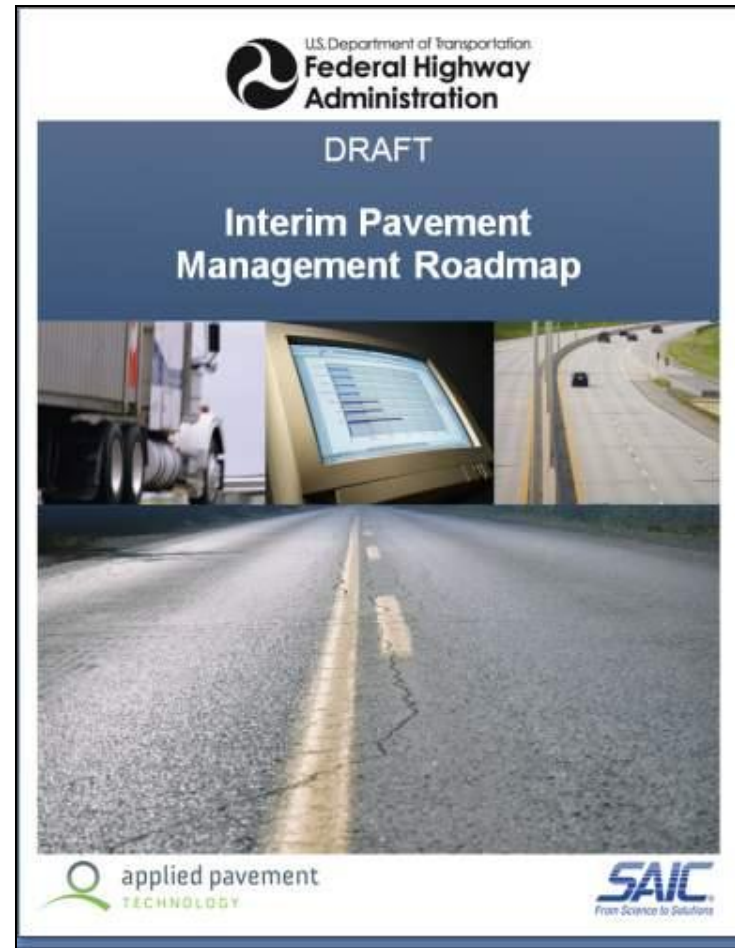
- **Focus Area 9: Pavement Preservation**
 - Integration of preservation treatments
 - Appropriate intervention levels
 - Costs and benefits of preventive maintenance
 - Impact of preventive maintenance on performance
 - Promoting pavement preservation
 - Effective performance measures for pavement preservation treatments

Pavement Preservation Needs Statements

- Short-Term Needs
 - Comprehensive study to guide the integration of pavement preservation and pavement management (1)
 - Developing guidelines for the communication of pavement management information and benefits (2)
 - Development and use of effective performance measures (3)
- Long-Term Needs
 - Methods of defining and calculating the effect of pavement preservation treatments on pavement life (1)

Prioritization Process

- Draft Roadmap Created
- Webinar



Prioritization Process

- Participants asked to rate and rank needs/themes
- Values are used to determine a weighted average for each need
- Calculated values used to establish priorities



Next Steps

- Finalize Roadmap
 - Insert prioritized short- and long-term needs
 - Add research problem statements for each need
 - Establish a recommended plan
- Promote the Roadmap
 - TRB and AASHTO Committees
 - Conferences

Thank You!

