Managing Pavements, Monitoring Performance

International Technology Scan Program
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Topics

• Team and Objectives
• Activities
• Findings
• Recommendations
• Products
Scan Team

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- Judith Corley-Lay, North Carolina DOT
- Kevin McLaury, Federal Highway Administration
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- Roger Safford, Michigan DOT
- Katie Zimmerman, Applied Pavement Technology (Report Writer)
- Armando Perez, American Trade Initiatives (Contractor)
Scan Team
Objectives

• Identify processes for implementing sustainable performance-based programs for managing pavements
• Acquire effective communication strategies
• Learn how to develop agency cultures to support performance-based programs
• Identify tools, techniques, and other mechanisms to support and encourage performance-based management
Desk Scan

• Sources of Information
  • Literature search
  • Internet review
  • Expert advice
Countries With Practices of Interest
Agencies Visited During Week 1

• New Zealand
  – New Zealand Transport Agency

• Australia
  – Institute of Public Works Engineering Australia (IPWEA)
  – Roads Corporation of Victoria (VicRoads)
  – Department for Transport, Energy & Infrastructure (South Australia)
Agencies Visited During Week 2

- Sweden
  - Swedish Transport Administration
  - Finnish Transport Agency
  - Danish Road Directorate
  - Norwegian Public Roads Authority
- Netherlands
  - Road Traffic & Transport Authority (Netherlands)
  - Szechenyi Istavan University (Hungary)
- England
  - Highways Agency
  - Transport for London
  - Transport Scotland
  - Transport Research Laboratory (TRL)
Amplifying Questions

1. Use of Sustainable Performance-Based Programs for Managing Pavements
2. Effective Communication Strategies to Promote Pavement Management Policies
3. Developing Agency Cultures to Support Pavement Management Policies
Perspective & Terminology

• Focus on pavement management policies and practices, but many findings relate to asset management – *same same*

• Focus on strategic goals and performance targets are similar to US performance management activities

• Economic climate similar to US

• Pavement preservation activities are referred to as maintenance and renewal activities
Key Findings

- Agency Culture Supports Long-Term Decisions
- Elected Officials Are Stewards of Public Funds
- There is a Service-Oriented Approach to Managing Roads
- Agency Priorities are Known and Personnel are Held Accountable for Actions
- Building Internal Capacity and Capabilities is a Focus
- Efficiency & Value Have Driven Program Delivery
Key Findings

• Long Term Financial Plans
  – These are not **funding** plans
  – Reporting on depreciation and unfunded liabilities every year
  – Business accounting

• Education and Training of Politicians
  – Politicians required to attend training
Agency Culture Supports Long-Term Decisions

• Development of 10-year financial plans that consider the whole life costs associated with the maintenance & renewal of the road

Guidelines developed & distributed by IPWEA
Elected Officials Are Stewards of Public Funds

- IPWEA trains politicians on their stewardship responsibilities toward infrastructure preservation
There is a Service-Oriented Approach to Managing Roads

- New Zealand Transport Agency compares the management of the road network to the management of a utility.
- Transport for London considers three factors important to providing an acceptable level of service:
  - Service
  - Risk
  - Cost
  - Customer Satisfaction
Key Findings, Different Applications

- New Zealand: service approach to preservation
- Vic Roads: preserve the BST, let HMA go
- Most countries still doing “worst first” even though they understand lowest life cycle cost
Agency Priorities Are Known & Personnel Are Held Accountable For Actions

• VicRoads places the highest priority on the local road network to reduce agency risk
Recommendations

1. Foster the use of asset management plans & long-term financial plans
2. Establish a strategic plan for providing the framework, tools, and drivers needed
3. Support the shift towards a service-based approach & identify needed Key Performance Indicators (KPIs)
4. Support changes to funding & delivery mechanisms to better support multi-year obligations tied to KPIs
5. Explore the use of independent performance audits
6. Develop core competencies and job descriptions for asset managers
7. Support improvements to current pavement management practices to support these efforts
8. Establish mechanisms to integrate findings into current practice
9. Further support the use of asset management
Final Products

• Summary Report
• Final Report
• Implementation Plan
  – Will be looking for volunteers
• More to come