Asset Management Program

Jim Smith, Acting Director Asset Management Division November 19, 2003



Asset Management Program

- Business needs
- Goals and objectives
- Program benefits
- VDOT's past approach
- What is VDOT doing differently?
- Program status
- Summary of work to date



Business Needs

- Manage VDOT's maintainable assets using a life-cycle approach
- Identify and prioritize statewide needs
- Provide adequate processes to plan, budget, implement, and monitor work efforts
- Meet APA and JLARC recommendations



Goals and Objectives

- Collect and maintain asset inventory and condition information
- Develop best practices for maintenance and operations activities
- Identify maintenance and operations needs
- Measure and track work accomplishments
- Determine the impact of deferred maintenance



Program Benefits

- System to collect, compile, and manage asset information
- Objective assessment of maintenance and operations needs
- Resource allocation based on needs
- Improved efficiency of maintenance and operations activities
- Improved performance and life expectancy of VDOT assets



VDOT's Past Approach

- Maintenance budget historically based:
 - Annual percentage increase
 - Little regard for inventory increase and special needs
 - Limited consideration for asset conditions



What is VDOT Doing Differently?

- Asset Management approach is:
 - Transition to needs-based budget
 - Incrementally delivered
 - Simple, easy-to-use decision support tool for the field



Program Status

Asset Management System

Random Condition Assessment Module Needs-Based Budget Module

Planning & Scheduling Module

Work Order,
Accomplishment
& Monitoring
Module

Inventory Module Analysis Tools Module

Complete

Complete

December 2003

February 2004 July 2004 October 2004



Random Condition Assessment

- Statistically-based sampling of asset inventory and condition:
 - Sampled over 9,000 one-tenth mile segments statewide across interstate, primary, and secondary systems
 - Developed application in-house
 - Assessment completed by state forces in three months
- Additional assessments to follow



Initial Findings from Needs-Based Budget Module

- Estimated unconstrained needs:
 - Extrapolated inventory and condition data from sample sites statewide
 - Developed and applied business models to data for selected assets
- Identified up to approximately \$890 million of needed work
 - 55% for pavements (e.g., crack sealing, patching, mill and replace)
 - 29% for bridges (e.g., joint repair, structural steel painting, deck repair)



Initial Findings (continued)

- Of the \$890 million needed work:
 - All known safety issues prioritized and addressed in current maintenance program
 - Lower performance standards would reduce short-term maintenance costs, but would increase long-term maintenance needs
 - Maintenance needs should be addressed over time
- Outcome will be incremental reallocation of maintenance resources across assets, systems, and districts



Next Steps

- Validate early findings
 - Collect more data
 - Refine decision models
- Begin addressing needs in FY 06 budget



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