



U.S. Department of Transportation
Federal Highway Administration

FHWA

Initiatives in Sustainability
Mid-Western States Regional
In-Place Recycling Conference
Schaumburg, IL

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Pavements & Construction



From Butch's Desk

- MAP-21
- Current Issues
- Initiatives



MAP-21

- 2-year Bill
- Current Funding Levels Extended
- Notable Provisions
 - Consolidated Funding Categories
 - NHPP
 - STP
 - CMAQ
 - 9 new Rules



MAP-21

- Asset Management Plan and process Requirement
- Performance Management
 - Safety
 - Infrastructure – Pavement and Bridge
 - Mobility – Environment
- Performance-Based Planning
- Goals - Targets



MAP-21

- Preservation a key component of MAP-21
- Needs to be addressed in Asset Management Plan and Process
- Needs to key part of the mix-of-fixes
- Needs to be a key part of the performance-based planning effort
- New statutory definition



MAP-21

- Asset Management
- Establishing a process:
- Strategic Vision and Goals
- Inventory and condition
- Gap Analysis
- Life-cycle cost and Risk Management
- Financial Plan
- Investment Strategy



MAP-21

- Collaborative effort with AASHTO
- Outreach to Partners – AGC, ARTBA, NACE etc.
- Rule making – 18 months



MAP-21

- Asset Management
- New minimum requirements for PMS and BMS
- Needs to include preservation
- Need your help – ROI on preservation fixes
 - Financial Plan and Investment Strategies



MAP-21

- Asset Management
- Focuses on Long Term
- With short term performance measures
- Looks at life cycle costs and risk
 - Keys to long term performance
- Stay away from worst-first
- Is Maintenance at the head-table discussing Asset Management?



MAP-21

- Draft NPRM for Asset Management Process in legal review
 - Fall – planned publish date
 - 60 day review and comment period
 - Final Rule mid-to-late summer 2014



MAP-21

- Infrastructure Performance Measures
- Pavement and Bridge
- New definitions / concepts
- Deteriorated condition
- Avoiding structurally deficient



MAP-21

- Infrastructure Performance Measures
- Pavement
- Still linked to IRI, but other aspects
- Matrix – IRI, Rutting, cracking, faulting
- Again need your help. No statistical performance data on preservation treatments
- Group road segments as Good Fair Poor
- Establish minimum condition for the Interstate



MAP-21

- Infrastructure Performance Measures
- Outreach and collaboration with AASHTO SCOPM and JTCP
- No common standards, procedures, or analysis tools
- Unanswered questions:
 - Lane miles vs centerline miles
 - 4 lane divided vs 12-14 lane no median
 - Where does VMT fit?
 - Composites - 6 lane divided 6 composites?
 - HMA vs PCC



MAP-21

- Questions:
 - Infrastructure Performance Measures
 - Calibration centers – FWD – Skid
 - Common analysis tools
 - Common standards
 - Drive / operator certification
- Should FHWA do the annual measures?
- Role of HPMS reporting system



MAP-21

- Infrastructure Performance Measures
- DRAFT NPRM nearly complete
- Tentative publishing date late 2013
- 90 days for review and comment
- Final Rule late summer 2014



Current Issues

- EDC2
 - Emerging technologies – Innovations
 - SIBC – IC – 3D-Modeling
 - Recycling just missed out last time
- SHRP2
 - Preservation (R26)
 - Rapid Renewal for Bridges (R04)
 - Next – PSPC concrete – Composite Pavements – Extending Life of Existing Pavements - NDT



Sustainable Pavements

- Relatively new concept
 - Competing Priorities / Concepts
 - Carbon foot prints – green house gases
 - Recycling – renewal
- Sound Business Practice
 - Reuse / recycle existing materials within the ROW
 - Reduce haul requirements
 - Reduce requirements for new materials



Sustainable Pavements

- Illinois Toll Authority Setting the Way Forward
 - 100% asphalt
 - Black rock for concrete
 - Concrete
 - Steel

- PC concrete repairs
- Two lift paving
- In-place recycling
- Going Green



Sustainable Pavements

- FHWA – Sustainability TWG
 - FHWA
 - State DOTs
 - Industry Reps
 - Academia
- Guidelines / concept papers
- Growing interest – Good Business Case



Sustainable Pavements

- New Associate Administrator
 - Butch Waidelich
 - Recycling / preservation background
 - Wants to make recycling flagship of EDC3
 - Speaker at ARRA/AEMA/ISSA National Meeting in Dallas
 - Future speaker at regional partnership meetings



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Thank You

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