



**HIBT Webinar on MAP-21  
HQ Room E75-302  
2:00 p.m. to 3:30 p.m., September 13, 2012**

# **MAP-21: Bridges and Structures**

**Moderated By Joey Hartmann  
Team Leader, Office of Bridge Technology  
Federal Highway Administration**

# Agenda

- 1. Opening Remarks by the Moderator—Joey Hartmann
- 2. Overview of MAP-21 - Myint Lwin, Director, Office of Bridge Technology
- 3. MAP-21 for Bridges and Structures—Tom Everett, Team Leader, Safety, Preservation and Management Team, Office of Bridge Technology
- 4. Research, Technology Deployment, Training and Education - Ian Friedland, Assistant Director, Office of Infrastructure Research and Development
- 5. Questions & Answers - Moderated by Joey Hartmann



# Moving Ahead for Progress in the 21<sup>st</sup>. Century (MAP-21)

<http://www.fhwa.dot.gov/Map21>

1. Creates jobs and supports economic growth
2. **Simplifies programs**
3. supports safety
4. **Accelerates program delivery**
5. Promotes innovation
6. **Strengthens America's Highway and Transportation System**
7. Performance-based Federal programs



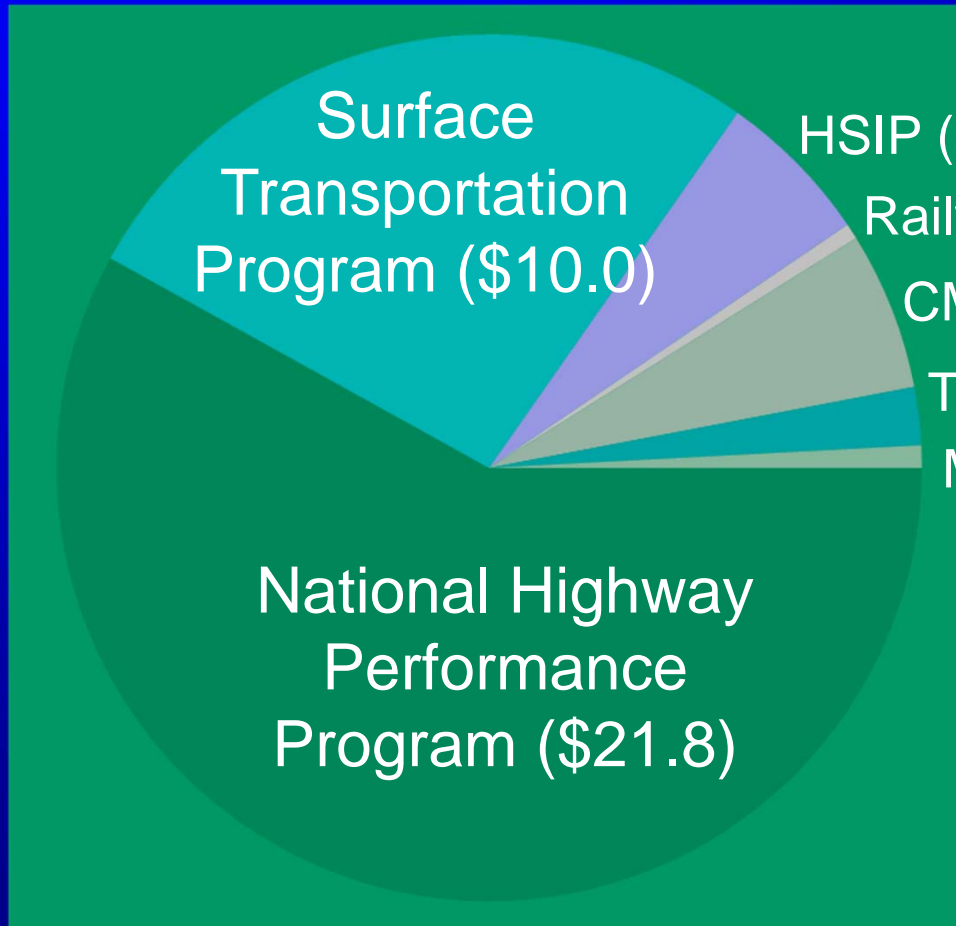
# MAP-21 Authorizations

(billions of dollars)

Agency	2013	2014	Total	%
FHWA	41.0	41.0	82.0	77.5%
FTA	10.6	10.7	21.3	20.1%
FMCSA	0.6	0.6	1.1	1.1%
NHTSA	0.7	0.7	1.4	1.3%
Total	52.8	53.0	105.8	100.0%



# \$37.7 Billion/Year in Formula Funding



HSIP (\$2.2)

Railway-Highway Crossing (\$0.2)

CMAQ (\$2.2)

Transportation Alternatives (\$0.8)

Metro Planning (\$0.3)

National Highway  
Performance  
Program (\$21.8)

**Note: Amounts in \$Billion**

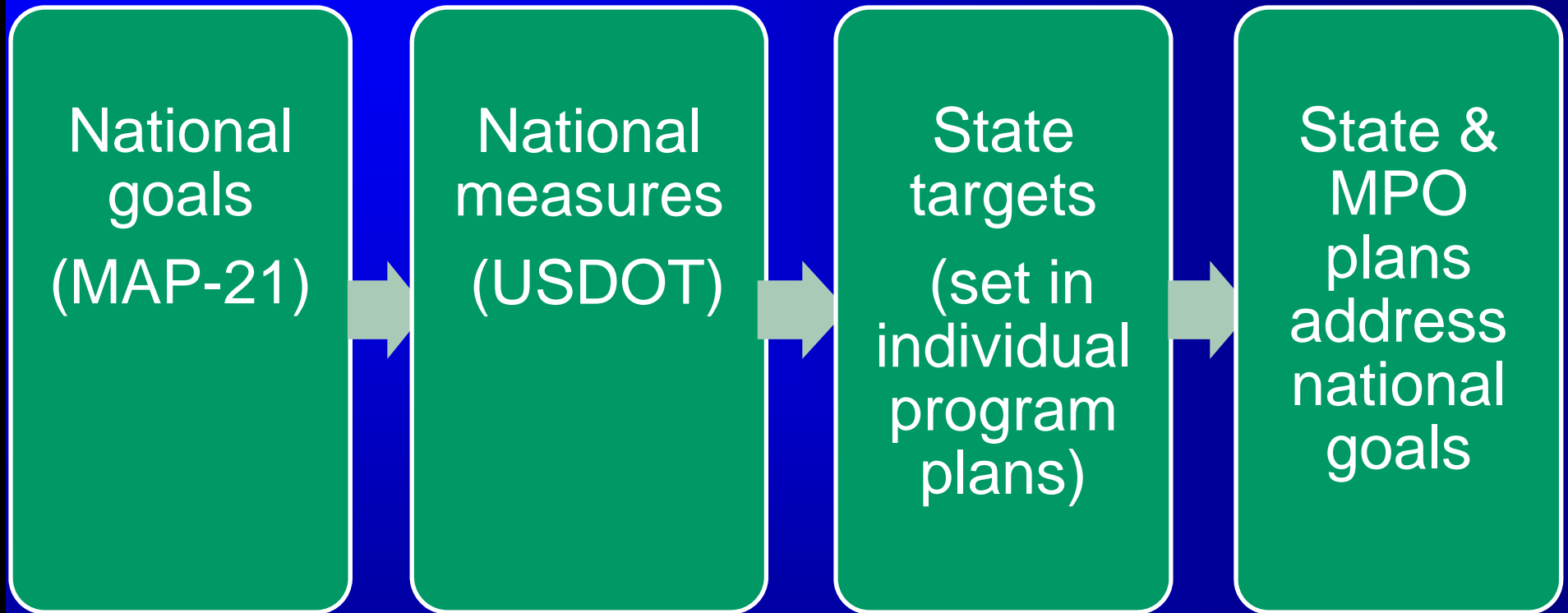


# Most Discretionary Programs Eliminated

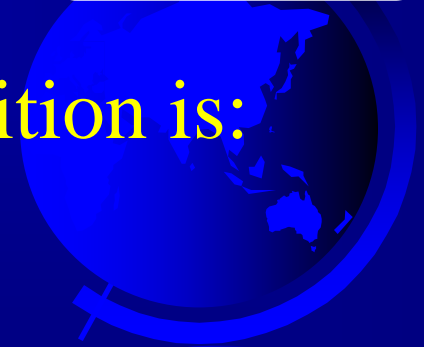
- ☞ Highways for LIFE Pilot
- ☞ Innovative Bridge Research & Deployment
- ☞ National Historic Covered Bridge Preservation



# Performance Management Process



National Goal for Infrastructure Condition is:  
Maintain in a “State of Good Repair”



# Transportation Infrastructure Finance and Innovation Act (TIFIA)

- ☞ Lending capacity expanded – up to \$17 billion in credit assistance over 2 years
- ☞ Notice of Funding Availability released July 27, 2012
- ☞ Program reforms
  - Letters of Interest / applications accepted throughout the year
  - Allows TIFIA participation for up to 49% of eligible project costs
  - Master credit agreement for programs of projects (secured by a common pledge) or phased single projects
  - Allows up to 10% to be set aside for rural projects; for these projects, increased eligibility and lower interest rates





**Thank You for Working Together**

**In Keeping Our Bridges & Tunnels  
in a “State of Good Repair”!**

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# MAP-21 FOR BRIDGES AND TUNNELS

Tom Everett  
Leader, Safety, Preservation and  
Management Team  
Office of Bridges and Structures

# MAP-21 FOR BRIDGES AND TUNNELS

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- ❑ Signed by President July 6, 2012
- ❑ 2 year Bill (2013 & 2014)
- ❑ Effective date: October 1, 2012
  - Unless otherwise provided, effective date is the date of enactment
- ❑ What happens between now and October 1<sup>st</sup>?
  - Follow SAFETEA-LU programs, rules, etc.

# PROGRAM STRUCTURE

MAP-21	Current Law
National Highway Performance Program (NHPP)	NHS, IM, & Bridge (portion)
Surface Transportation Program (STP)	STP & Bridge (portion)
Congestion Mitigation & Air Quality Improvement Program (CMAQ)	CMAQ
Highway Safety Improvement Program (HSIP)	HSIP (incl. High Risk Rural Roads)
Railway-Highway Grade Crossing <i>(takedown from HSIP)</i>	Railway Highway Grade Crossing
Metropolitan Planning	Metropolitan Planning
Transportation Alternatives <i>(setaside from NHPP, STP, HSIP, CMAQ, and Metro Planning)</i>	TE, Recreational Trails, and Safe Routes to School

# MAP-21 FOR BRIDGES AND TUNNELS

- Four primary programs
  - National Highway Performance Program
  - Surface Transportation Program
  - Highway Safety Improvement Program
  - Congestion Mitigation and Air Quality Improvement Program
- Funding for these programs
  - \$37.5 billion in 2013
  - \$37.8 billion in 2014
  - Continue under extension until October 1, 2012 (2011 funding levels)

# MAP-21 FOR BRIDGES AND TUNNELS

- ❑ Apportionment process (SEC 1105)
  - Apportioned to states based on total Federal apportionment in 2012
  - Process differs for 2013 and 2014
  - Adjusted for minimum tax payments into the trust fund (95% minimum)
- ❑ Can transfer up to 50% among programs (SEC 1509)
- ❑ National Highway System expanded (SEC 1104)
  - Now includes all urban and rural principal arterials and other connector highways and all STRAHNET routes and connectors

# MAP-21 FOR BRIDGES AND TUNNELS

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- Apportionment process (SEC 1105)
  - Determine amount for CMAQ and metropolitan planning following process in law
  - From the remaining amount...
    - 63.7% for NHPP
    - 29.3% for STP
    - 7% for HSIP

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Highway Performance Program (SEC 1106)
  - Eligible facility = any facility on the NHS
  - Eligible project = supports the national performance goals and meets at least one listed purpose
  - NHS Performance targets set by state as part of an asset management plan
    - Risk and performance based
    - In line with national goals, specified in law (SEC 1203)



# MAP-21 FOR BRIDGES AND TUNNELS

- National Highway Performance Program (SEC 1106)
  - Includes bridges and tunnels on the NHS
    - Eligible - construction, replacement (including with fill), rehabilitation, preservation, protection, inspection, evaluation, inspector training
    - NEW TERM – Protection – scour countermeasures, seismic retrofits, impact protection, security, extreme events
  - Includes inspection and evaluation of other infrastructure assets (signs, walls, drainage structures)

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Highway Performance Program (SEC 1106)
  - Includes costs associated with obtaining, updating, and licensing software and equipment required for asset management
  - Asset management plan must include specific features such as objectives and measures, investment strategies, risk analysis, and *a summary listing of all pavement and bridge assets on the NHS, including a description of their conditions*

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Highway Performance Program (SEC 1106)
  - Timing of actions
    - 18 months after October 1<sup>st</sup> - Secretary to issue regulations defining the process for developing an asset management plan
    - 18 month transition period beyond publication of final rule
    - Total = 36 months

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Highway Performance Program (SEC 1106) – other details
  - If no approved asset management plan, Federal share is 65%
  - Penalty if > 10% of deck area on structurally deficient NHS bridges for the prior 3 years
    - 50% of 2009 Highway Bridge Program apportionment equals the amount that must go to bridges under the NHPP

# MAP-21 FOR BRIDGES AND TUNNELS

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- ❑ When will the bridge condition penalty under section 1106 (23 U.S.C. 119(f)(2)) be applied?
- ❑ In order to allow the States three complete years under the NHPP as required by 119(f)(2), FHWA will examine bridge condition data submitted by the States in April 2014, 2015, and 2016. If the deck area on structurally deficient NHS bridges exceeds 10 percent for all three years, the penalty will be imposed on October 1, 2016 (the start of FY 2017).

# MAP-21 FOR BRIDGES AND TUNNELS

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- Surface Transportation Program (SEC 1108)
  - Includes bridges and tunnels on public roads of all functional classifications
  - Eligible – construction of new bridge or tunnel on a Federal-aid Highway, replacement (including with fill material), rehabilitation, preservation, protection, application of de-icing chemicals, inspection, evaluation, inspector training

# MAP-21 FOR BRIDGES AND TUNNELS

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- Surface Transportation Program (SEC 1108)
  - Also includes...
    - construction or reconstruction necessary to accommodate other transportation modes
    - costs associated with obtaining, updating, and licensing software and equipment required for asset management
    - inspection and evaluation of other infrastructure assets (signs, walls, drainage structures)

# MAP-21 FOR BRIDGES AND TUNNELS

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- Surface Transportation Program (SEC 1108)
  - 15% of 2009 Highway Bridge Program apportionment set aside for bridges not on Federal-aid highways
    - waiver still allowed when State has “inadequate needs”
  - Credit for bridges not on Federal-aid Highways



# MAP-21 FOR BRIDGES AND TUNNELS

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- National Bridge and Tunnel Inventory and Inspection Standards Program (SEC 1111)
  - Congress determined that it is in the vital interest of the U.S. to use performance based bridge management systems
  - Establish tunnel inspection standards and an inventory
  - Revisit Sufficiency Rating – consider emergency and freight mobility

# MAP-21 FOR BRIDGES AND TUNNELS

- National Bridge and Tunnel Inventory and Inspection Standards Program (SEC 1111)
  - Determine cost of rehabilitating or replacing each SD bridge
  - Annually update bridge and tunnel inventories
  - New Report to Congress on inventories
  - Element level data:
    - Issue guidance and begin collecting w/i 2 years of enactment for NHS bridges
    - Study cost-effectiveness, benefits, feasibility of collecting for non-NHS bridges – report results to Congress

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Bridge and Tunnel Inventory and Inspection Standards Program (SEC 1111)
  - Establish and maintain inspection standards for bridges and tunnels
    - Specify method for carrying out inspections
    - Establish max time between inspections
    - Establish qualifications
    - Require written reports and inventory data
    - National inspector certification process

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Bridge and Tunnel Inventory and Inspection Standards Program (SEC 1111)
  - Establish procedures for compliance reviews
  - Establish procedures for reporting critical findings and monitoring corrective actions
  - Requirement to conduct annual compliance reviews
    - Issue report with review results by December 31<sup>st</sup>
    - Implement “penalty” if no resolution or plan of corrective actions within 45 days

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Bridge and Tunnel Inventory and Inspection Standards Program (SEC 1111)
  - Update the Inspection Standards within 3 years to cover
    - Methodology, training, and qualifications
    - Frequency of inspection
    - Consider risk-based approach to setting inspection intervals
  - Maintain a bridge and tunnel inspection training program
    - Keep training up-to-date
    - Need to develop training program for tunnel inspectors

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Goals and Performance Management Measures (SEC 1203)
  - 7 national goal areas defined in law
  - Infrastructure condition – maintain a state of good repair
  - 18 months after enactment – rulemaking to “*establish performance measures and standards.*”
  - 12 months after the rule, states set their targets
    - Targets can differ for rural and urban areas

# MAP-21 FOR BRIDGES AND TUNNELS

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- National Goals and Performance Management Measures (SEC 1203)
  - For bridges, limited to standards and measures for bridge conditions on the NHS
  - Establish minimum standards for States to use in developing and operating bridge and pavement management systems
- 4 years after enactment and biennially thereafter, states report on conditions and progress

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□ QUESTIONS