



U.S. Department of Transportation  
**Federal Highway Administration**



# Transportation Asset Management Plan Rule Implementation Update

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U.S. Department of Transportation  
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# Outline

- MAP-21 and FAST Acts Overview
- TAMP Goal and Purpose
- Role of Management Systems in TAMP
- TAMP Elements
- Current Status
- Key Findings/ Observations/ Recommendations
- Actions and Approvals
- What should be taking place now?
- TAM Resources



# MAP-21 and FAST Acts Title 23 of the U.S. Code (U.S.C.)

§150	<b>Safety Performance Measures</b>	<ul style="list-style-type: none"><li>• Define Performance Measures for Fatalities and Serious Injuries</li><li>• Discuss Implementation of Performance Requirements Initiated by MAP-21 and FAST</li></ul>
§148	<b>Highway Safety Improvement Program</b>	<ul style="list-style-type: none"><li>• Integrate Performance Measures, Targets and Reporting into HSIP</li></ul>
§134 §135	<b>Statewide &amp; Metro Planning, Non-Metro Planning</b>	<ul style="list-style-type: none"><li>• Define Coordination for Target Selection, Planning and Programming</li></ul>
§150	<b>Pavement and Bridge Performance Measures</b>	<ul style="list-style-type: none"><li>• Define Pavement and Bridge Condition Performance Measures</li><li>• Discuss Implementation of Performance Requirements Initiated by MAP-21 and FAST</li></ul>
§119	<b>Highway Asset Management Plan</b>	<ul style="list-style-type: none"><li>• Define the Asset Management Plan</li><li>• Define Minimum Standards</li></ul>
§150	<b>System Performance and Congestion Mitigation and Air Quality Improvement (CMAQ) Program Measures</b>	<ul style="list-style-type: none"><li>• Define Performance of the Interstate System, Non-Interstate System</li><li>• Finalize Scope of CMAQ Performance Requirements</li></ul>

# The Relationship

## Pavement & Bridge Measures

- FHWA to establish consistent performance measures across NHS
- Minimum condition levels for Interstate pavements and NHS bridges
- States and MPOs set performance targets
- States collect and report data

## Asset Management Plan

- Incorporates State objectives, measures and targets
- Perform gap, life cycle planning and risk analysis
- Develop investment strategies using data and tools from Pavement and Bridge Management Systems
- Develop decision-making priorities and financial plans

## Performance-Based Planning

- States and MPOs focus on national goals
- Develop strategy and targets
  - Focus on performance areas
  - Determine trade-offs
- Develop transportation improvement programs with targets
- Reporting and transparency
  - Deliver projects and carry out strategies
  - States and MPOs report on performance



# The Relationship



# TAMP Goals

- Maintain the highway infrastructure asset system in a State of Good Repair(SOGR)
- Manage your network for the long term at the minimum practicable cost to:
  - **Improve or preserve** asset condition and system performance
  - **Manage risk**
  - **Use Performance measures** as key indicators



# TAMP Rule Purpose

- Establish the processes that a State transportation department (State DOT) must use to develop its asset management plan, as required under 23 U.S.C. 119(e)(8);
- Establish the minimum requirements that apply to the development of an asset management plan;
- Describe the penalties for a State DOT's failure to develop and implement an asset management plan in accordance with 23 U.S.C. 119 and this part;
- Set forth the minimum standards for a State DOT to use in developing and operating highway bridge and pavement management systems under 23 U.S.C. 150(c)(3)(A)(i).



# Ensuring Use of Best Available Data and Use of Bridge and Pavement Management Systems

The TAMP must describe a methodology for:

- Ensuring that the State DOT uses the best available data.
- Ensuring the management systems that meet the requirements of 23 CFR 515.17 are used for data analysis.
  - If, at the time of the first certification, the State DOT **does not** have bridge and pavement management systems that fully comply with 23 CFR 515.17 standards, the **State DOT identifies additional means to meet all of the requirements.**





# Management Systems Minimum Standards per 23 CFR 515.17

- a. Collecting, Processing, Storing, and updating Inventory and Condition Data.
- b. Forecasting Deterioration for NHS Assets.
- c. Determining benefit-cost over life cycle of assets.
- d. Identifying short- and long-term budget needs.
- e. Determining the strategies for identifying potential NHS projects.
- f. Recommending programs and implementation schedules to manage the condition of NHS assets within policy and budget constraints.



# Transportation Asset Management Plan Elements

- Asset Management Measures and State DOT Targets for Asset Condition
- Description of the Condition of NHS Pavements and Bridges
- Performance Gap Identification
- Life-cycle planning
- Risk management plan
- Financial plan
- Investment strategies



# Current Status

- States submitted their State-approved (a “fully compliant”) Final TAMP before **July 1<sup>st</sup>** that meets all the requirements of 23 U.S.C. 119 and 23 CFR part 515.
- FHWA Division Offices **conducted consistency determination reviews** of their respective States.
  - <https://www.fhwa.dot.gov/asset/guidance/consistency.pdf>
- FHWA HQ, Resource Center and Division Offices worked together to provide technical assistance to States on a case-by-case basis.



# Consistency Determination Elements

- ✓ Approved by the head of the State DOT
- ✓ Plan developed from certified processes
- ✓ Plan includes required content
- ✓ Other assets addressed, if included
- ✓ Plan integrated in transportation planning process
- ✓ Plan made available to the public
- ✓ State has demonstrated implementation of the plan



# FHWA Resource Center TAMP Team (Multi-Disciplinary Approach)

## TPM, Asset Management and Freight Team

- Lisa Randall – Team Director
- Vidya Mysore – SE States Lead
- Brian Betlyon – MW States Lead
- Jocelyn Jones – NE States Lead
- Christina Leach – Western States Lead

## Structures Team

- Larry O'Donnell
- Stephen Bartha

## Pavements and Materials Team

- Robert Orthmeyer
- Luis Rodriguez

## HQ Asset Management Team

- Steve Gaj - Team Leader
- Nastaran Saadatmand
- Nat Coley
- Peter Doan



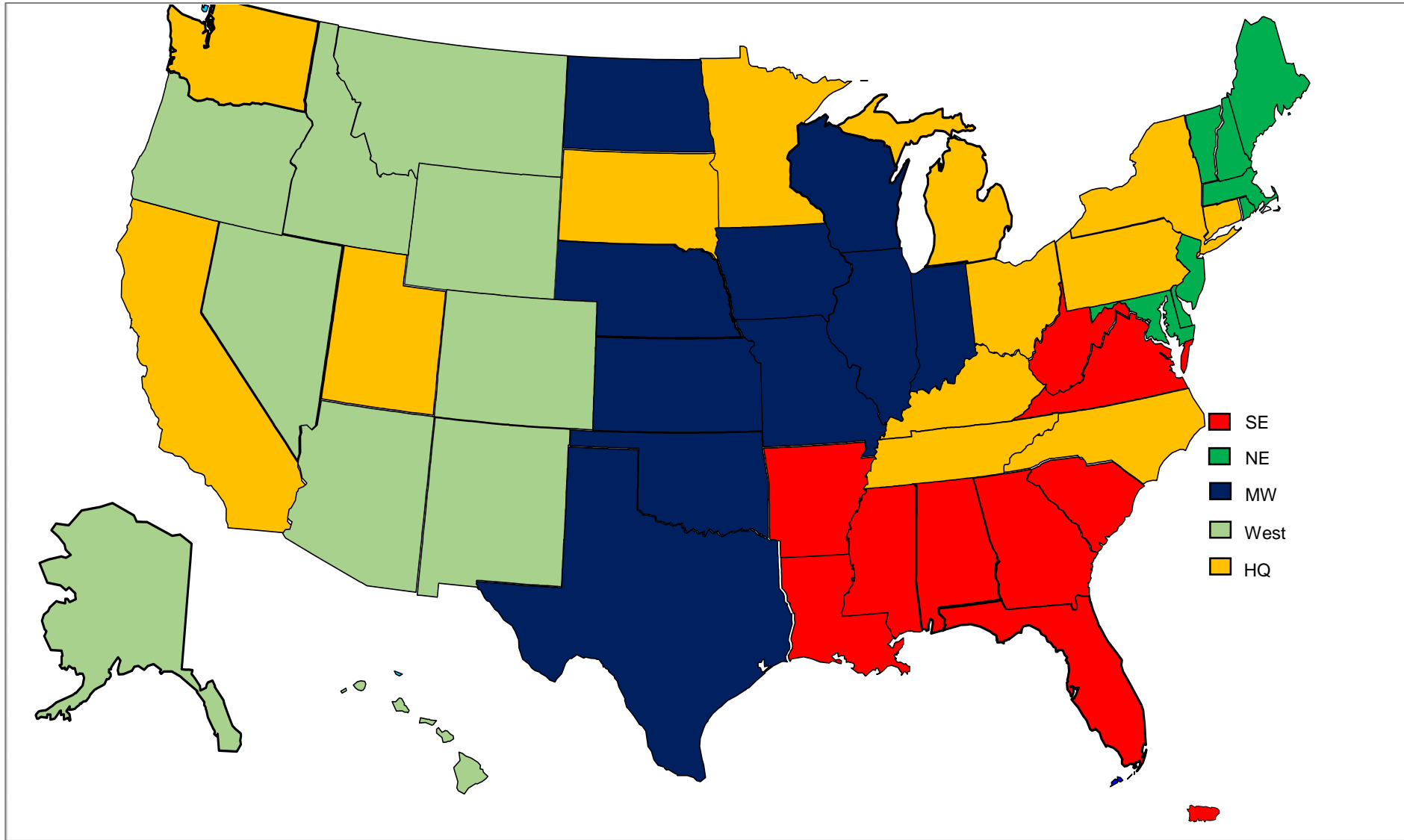
<https://www.fhwa.dot.gov/resourcecenter/>



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# TAMP Consistency Determination Regions



# Documentation to Demonstrate TAMP Implementation

Each State DOT determined the most suitable approach for demonstrating implementation of its asset management plan, as long as the information was:

- Current
- Documented
- Verifiable



# TAMP Implementation Documentation

- Plan Investment Strategies ~ Actual State Funding Allocations
  - For the 12 months preceding the consistency determination
  - Planned and actual detailed by various work types
- Documentation of State DOT decision
- Implementation Narrative or tabular form
- Should be concise – **focus on demonstration of implementation**
- Ideally show actual vs. planned work types





# FY 2019 State Investment Plan

Projected revenues indicated that NDOT could support a larger construction program for FY 2019 than had been published in previous years. The FY 2019 Program size was published at \$550 million dollars, and included 110 projects. Provided below is a comparison between the planned investment as of July 2018, and the actual investment that occurred by June 2019.

## FY2019

Asset Allocation	Planned Investment	Actual Investment	Difference in Millions
Highway Pavement Preservation and Modernization	\$240	\$240	0
Bridge Preservation and Modernization	\$74	\$78	4
Interstate Preservation and Modernization	\$69	\$67	-2
Capital Improvement (pavement & bridges)	\$114	\$113	-1
Routine Surface Maintenance of highways and bridges	\$53	\$53	0
<b>TOTALS</b>	<b>\$550</b>	<b>\$551</b>	<b>1</b>



# Congratulations!

**Each FHWA Division Office confirmed that their State's TAMP is in full compliance with 23 U.S.C. 119. [23CFR515.13 (b)] before the August 31st deadline.**

## However...



# Key Findings/Observations

- Management Systems are not fully operational.
  - Determining benefit-cost over life cycle of assets.
  - Identifying short- and long-term budget needs.
  - Determining the strategies for identifying potential NHS projects.
  - Recommending programs and implementation schedules to manage the condition of NHS assets within policy and budget constraints.
- No clear understanding of Life Cycle Planning Process and relationship to Financial Plan Development.
  - Processes to identify gaps, determine available funding, predict future conditions, and develop investment strategies.
  - Documentation on system performance gap analysis; work types; inclusion of new construction; various factors related to NHS local ownership and financial plans
- Integrating asset management planning in the overall DOT planning process. (23 U.S.C.134)



# Key Findings/Observations

(continues)

- Link to Programming Not Clear
  - Some TAMPs showed line-of-sight link to programming
  - Others said districts pick projects on local priorities
  - Several still rely on historical program splits
  - Several just didn't say how programming decisions were made



# Recommendations

- FHWA Develops Asset Management Best Practice Catalog
- NHI offers updated training courses
  - Asset Management
  - Pavement Management Systems w/ emphasis in TAMP and Performance Measures
- FHWA continue to offer a Life Cycle Planning, Financial Planning and Risk Management Workshop
- Develop and offer a Training/Workshop on relation between Performance Measures, TAMP and Performance-based Planning
- Conduct Peer Exchanges
- On Demand, Tailored Technical Assistance from the Resource Center (e.g., support to Divisions on initial TAMP reviews)



# Actions and Approvals (Certification) - Important Dates:

- A State DOT must update its asset management plan and asset management plan development processes **at least every 4 years, beginning on the date of the initial FHWA certification** of the State DOT's processes (23 CFR 515.13(c)).
  - Ex. State DOTs Initial TAMP processes were certified on June 15, 2018; therefore, the State DOT shall submit their updated asset management plan and processes with their request for recertification no later than June 15, 2022.



# Actions and Approvals - Important Dates:

- Whenever the State DOT updates or otherwise amends its asset management plan or its asset management plan development processes:
  - The State DOT must submit the amended plan or processes to the FHWA for a new process certification and consistency determination at least 30 days prior to the deadline for the next annual FHWA consistency determination.
  - Minor technical corrections and revisions with no foreseeable material impact on the accuracy and validity of the processes, analyses, or investment strategies in the plan do not constitute amendments and do not require submission to FHWA.



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# Actions and Approvals (Annual Consistency Determination) - Important Dates:

- Not later than **June 30, 2020** and each year thereafter: State DOTs shall submit documentation to demonstrate implementation of the plan.
- Not later than **July 31** in each year, FHWA will notify the State DOT whether the State DOT has developed and implemented an asset management plan consistent with 23 U.S.C. 119.
- The State DOT has **30 days** to address the deficiencies if FHWA issues a negative consistency determination.



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# Annual Consistency Determination - Penalties:

## § 515.15 Penalties

(a) Beginning on **October 1, 2019, and in each fiscal year thereafter**, if a State DOT has not developed and implemented an asset management plan consistent with the requirements of 23 U.S.C. 119 and this part, **the maximum Federal share for National Highway Performance Program projects and activities carried out by the State in that fiscal year shall be reduced to 65 percent for that fiscal year.**



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# What should be taking place now?

- Address the gaps identified in the TAM
- Is the State DOT TAM Group meeting regularly, is the membership right?
- Address issues raised, such as those identified as extenuating circumstances. (work types, etc.)
- Advance implementation of management systems
- Consider how performance gap analysis for performance of the network can be improved
- Application of asset valuation analysis



# What should be taking place now?

(continues)

- Consider having the Life-cycle planning analysis be more comprehensive.
- Re-evaluate targets and state-of-good-repair goals, are they strategic
- Address risks (investment strategies)
- Risk management Extreme events evaluations under 23 CFR part 667
- Will the State DOT include additional assets in the future?
- Consider improved coordination and working with other owners.



# TAM Internet Resources

- FHWA Asset Management:
  - <https://www.fhwa.dot.gov/asset/>
- State TAMPs Internet Site:
  - <https://www.fhwa.dot.gov/asset/plans.cfm>
- TAMP Regulation:
  - <https://www.govinfo.gov/content/pkg/CFR-2018-title23-vol1/xml/CFR-2018-title23-vol1-part515.xml>
- TAM Guidance (Life Cycle Planning, Risk Management and Financial Plan)
  - <https://www.fhwa.dot.gov/asset/guidance.cfm>
- FHWA Asset Management Q&A's:
  - <https://www.fhwa.dot.gov/asset/guidance/faqs.cfm>



# Asset Management Resources



## • Networking and Peer Dialogue

- Regional Division and State DOT meetings/webinars
- Peer Exchanges
- Periodic Webinar Meetings with FHWA Asset Management staff

## • Learning Development

- TAM Life Cycle Planning, Risk Management and Financial Planning Workshop
  - Contact Mr. Brian Betlyon at [brian.betlyon@dot.gov](mailto:brian.betlyon@dot.gov)
- NHI Transportation Asset Management Course
  - <https://www.nhi.fhwa.dot.gov/home.aspx>



# Transportation Performance Management

- TPM Internet Site
  - <https://www.fhwa.dot.gov/tpm/>
- Presentations and Webinars
  - <https://www.fhwa.dot.gov/tpm/resources/presentations.cfm#rmweb>



# AASHTO and TRB Resources

- AASHTO Asset Management Guide – A Focus on Implementation
  - <https://www.fhwa.dot.gov/asset/pubs/hif13047.pdf>
- AASHTO Transportation Asset Management Portal
  - <http://www.tam-portal.com/>
- TRB Asset Management Committee (ABC40)
  - <http://www.trb.org/ABC40/ABC40.aspx>





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# Questions?

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