

**AASHTO Committee on Performance Based Management
Research Update
September 2, 2020**

Current Activities:

Domestic Scan

Selected for funding in Federal FY20: Best Practices for Developing, Implementing and Maintaining an Effective Bridge Management System

Chad Allen, Vermont AOT initiated this project and will hopefully be the lead on it.

NCHRP Synthesis

3 Topics selected during 2020 cycle for 2021 funding and in table “Research Ideas Selected for 2021”

Deadline for next round of Synthesis is February 2021

NCHRP Problem Statements

Proposed Problem Statements for FY2022 Funding

Tech Committee	Title	Amount	Comment
Risk Management	Building Risk-Management Momentum in Transportation Agencies	\$300,000	Re-work FY21 submittal
Asset Management	Causes and Effects of Transportation Asset Data Collection Variability on Condition Assessment	\$400,000	Re-work FY21 Submittal
Asset Management	Several other Topics (about 6 being worked on)		

Research Ideas selected for 2021 funding (panels forming)

Prob No.	Title	Status	Amount	Subcommittee
08-113	Integrating Effective Transportation Performance, Risk, and Asset Management Practices		\$146,000	Risk Management
08-138	Connecting Transportation Asset Management (TAM) and Transportation System and Management Operations (TSMO)		\$500,000	Asset Management and System Mobility and Emerging Technologies

08-136	Guidance on Using Performance-Based Management Approaches for Maintenance		\$500,000	Asset Management
08-137	Further Enhancements and Content for the AASHTO Transportation Asset Management Guide—A Focus on Implementation (TAM Guide III)		\$450,000	Asset Management
23-15	Prioritization of Risks Related to Connected and Automated Vehicles and Emerging Technologies		\$250,000	Risk Management
23-16	Implementing and leveraging Artificial Intelligence and Machine Learning at Departments of Transportation		\$350,000	System Mobility and Emerging Technologies
23-14	Research Roadmap for Knowledge Management		\$300,000	CPBM
19-18	Transitioning Fuel Tax Assessments to Road Usage Charge		\$600,000	System Mobility and Emerging Technologies
08-145	Utilizing Cooperative Automated Transportation (CAT) Data to Enhance the Use of Freeway Operational Strategies		\$500,000	System Mobility and Emerging Technologies
08-146	Integrating Resiliency into Transportation System Operations		\$350,000	Risk Management
08-143	Impact of Spatial Segmentation on Travel Time Reliability Performance Measures		\$150,000	System Mobility and Emerging Technologies
Syn 52-02	Current Practices in Bridge Asset Management for Decision Making		\$45,000	Asset Management
Syn 52-07	Assessing the Impact of Evolving Pavement Data Collection Technology		\$45,000	Asset Management
Syn 52-16	Visualization of Performance Measures		\$45,000	CPBM

Previously Selected Research - Active

Prob. No.	Title	Status	Amount	Consultant
NCHRP 23-06	<i>Developing an AASHTO Guide to System Level Asset Valuation in Support of Transportation Asset Management Decision Making</i>	Kick off call with panel 7/21/20 Work plan approved	\$600,000	Spy Pond Partners
NCHRP 08-127	<i>Emerging Issues: Impact of New Disruptive Technologies on the Performance of DOTs</i>	Panel met in October 2019 to write RFP Shown as "Pending" on TRB		Christos on panel
NCHRP 23-07	<i>Guidebook for Identifying and Implementing Forecasting Techniques for Effective Target Setting</i>	9/11/22 completion date		ICF Incorporated
NCHRP 23-08	<i>Guidelines for Incorporating Maintenance Costs into a Transportation Asset Management Plan</i>	AASHTO Committee on Maintenance Submitted Shown as "Pending" on TRB		
NCHRP 08-113	<i>Effective Transportation Asset Management Practices at State DOTs, Regional Organizations and Local Agencies</i>	Completion 1/29/21		Jacobs
NCHRP 08-115	<i>Framework for Designing and Managing Data and Information Workflows for Transportation Assets</i>	Pilot states being identified for implementation of the tool		Spy Pond Partners
NCHRP 03-128	<i>Business Intelligence for Transportation System Management and Operations and</i>	Completion date 1/19/20 (Matt Haubrich status?)		Applied Engineering Management Corporation

	<i>Agency Decision Making</i>			
NCHRP 08-109	<i>08-109—Updating the AASHTO Transportation Asset Management Guide-A Focus on Implementation</i>	TAM Guide III published and on TAM portal, phase II approved for funding	\$600,000	Spy Pond Partners/AP Tech
NCHRP 20-44(2)	<i>Implementation ERM Guide</i>	Completion 4/1/20		Starisis
NCHRP 02-26	<i>Implementation of Life-Cycle Planning Analysis in a Transportation Asset Management Framework</i>	2 nd Quarterly report and interviews of 5 DOTs nearing completion		WSP
NCHRP 08-118	<i>Risk Assessment Techniques for Transportation Asset Management</i>	ongoing		Starisis
NCHRP 02-27	<i>Making Targets Matter: Managing Performance to Enhance Decision-Making</i>	Completion date 12/10/20		High Street Consulting
NCHRP Synthesis 50-15	<i>Asset Management Approaches to Identifying and Evaluating Assets Damaged Due to Emergency Events</i>	2 nd Draft Report Review and voting to publish 7/31/20	\$45,000	Spy Pond
NCHRP 20-24(127)	<i>Performance Management Implementation Concerns, Issues and Challenges</i>			
NCHRP 20-123(01)	<i>Transportation Asset Management Strategic Planning and Research Roadmap Development</i>	<i>TAM Workshop held October 2019, Spy Pond Partners submitted Workshop Summary comments due 12/16/19</i>		Spy Pond Partners

Recently Completed Research

Prob. No.	Report No.	Title	Year Selected	Consultant
NCHRP 20-100	NCHRP 866	<i>Return on Investment in Transportation Asset Management Systems and Practices</i>	2016	Spy Pond Partners
NCHRP 19-12	NCHRP 898	<i>898—Guide for Financial Planning and Management in Support of Transportation Asset Management</i>	2016	Spy Pond Partners
NCHRP 20-118	NCHRP 902	<i>Effective Performance Management by Transportation Agencies: Benchmarking and Comparative Measurement</i>	2017	
NCHRP 08-108	NCHRP 920	<i>Developing National Performance Management Data Strategies to Address Data Gaps, Standards and Quality</i>		
NCHRP 20-24 Task 124	Report disseminated	<i>Communicating Performance Management Peer Exchange</i>	2018	