



# Research Program Enhancement

West Virginia Department of Transportation

March 4, 2024

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# Introductions

## Key Project Team Members



**Perry McCutcheon, PE**  
**WV Project Manager**

- Visualization Unit leader at West Virginia Division of Highways
- Experience in traffic engineering, civil land development, and concept visualization



**Justin Robinson, PE**  
**Project Manager**

- 22 years of experience
- Background in material research for infrastructure applications at WVU
- Based in our NC offices to provide collaboration with program support staff



**Neil Mastin, PE**  
**Subject Matter Expert**

- 25 years of experience
- Former Manager of Research & Development for NCDOT
- Experience as steering committee chair on NCDOT and NCHRP projects

# Roadmap for Research – Discovery, Scheduling and Process

Our approach



Discovery session & current program review



Scheduling



Establish annual budget



Selection process review & implementation



Pooled fund management



Project management



Annual work program development



Research idea solicitation



Outreach & training



Research manual update



Implementation support



Compliance and Performance Reporting

# Research Program Goals

## Improve agency processes and materials through quality research

The goal of a transportation research program is to make a real and positive impact on agency programs and through the agency, the traveling public

Projects should be of good quality and produce useful, implementable or transferable results

## Communication

Engage agency staff with communication tools to acquire ideas and distribute results

## National Exposure

Through presentations by researchers and by staff at key meetings, communicate research in WV to a national audience such as AASHTO committees, the Transportation Research Board and other national bodies

## Certification

Update and maintain a robust Research Manual to meet all requirements and document current processes

Assist the agency in documentation and certification for its SPR Part B Program

# SP&R Part B Research Funding

## Highway Program Apportionment

- West Virginia receives approximately \$600M of Federal Funding per year in total highway apportionment funds

## 2% of the total must be dedicated to State Planning and Research – SP&R

- Of that, 2%, 25%, or 0.5% of the total apportionment is dedicated to SP&R Subpart B for research.
- Matching funds of 20% are required, like many highway funding programs
- WVDOT Pooled Fund participation does not require a state match
- SP&R funds currently do not sunset, however, they are subject to annual obligation authority rules and if not expended, could be subject to rescission
- States must certify their SP&R Programs Annually

## Approximate West Virginia SP&R Subpart B Formula Appropriation by Federal Fiscal Year

FFY	Federal Funds	20% Match	Total
<b>2024</b>	\$ 2,952,684	\$ 738,171	<b>\$ 3,690,855</b>
<b>2025</b>	\$ 3,011,742	\$ 752,935	<b>\$ 3,764,677</b>
<b>2026</b>	\$ 3,071,980	\$ 767,995	<b>\$ 3,839,975</b>
<b>2027</b>	\$ 3,133,424	\$ 783,356	<b>\$ 3,916,780</b>

These are the funds that can be used for internal and external research projects and research implementation

# Project and Program Development



## Establish an appropriate budget

- Establish a suitable and sustainable annual budget

## Review and update Selection Process


- Select projects that best support the agency and public needs
- Create online tools for idea and proposal collection to document and streamline processes
- Develop a formal process for pooled fund participation

## Research Idea and Proposal Solicitation

- Solicit and select ideas – internal/external mix –
- Update the Research Problem Statement Solicitation Form and make it an online tool
- Keep the focus on applied research

## Annual Program Development

- Project selection and timelines – cyclical and repeatable
- FHWA Approval – establish a good rapport and process


**West Virginia Department of Transportation**  
 Division of Highways - Research and Special Studies  
**Proposal Review Form**  
 For FY 20\_\_ Research Program

RP#: \_\_\_\_\_ Review Date: \_\_\_\_\_  
 Title of Proposal: \_\_\_\_\_  
 Category: \_\_\_\_\_  
 Proposal Submitted By: \_\_\_\_\_  
 Name of Reviewer: \_\_\_\_\_  
 Position: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

For review area numbers 1 - 6 listed below, please assign points based on the following

0 - Not Covered    1 - Very Poor    2 - Poor  
 3 - Average        4 - Above Average    5 - Excellent

AREA OF REVIEW	WEIGHT OF AREA	POINTS GIVEN	WEIGHTED POINTS
1) Does the proposal meet the objectives of the project with the researcher having a working understanding of the problem?	25		
2) Do the tasks listed in the proposal contain an adequate level of explanation and detail?	25		
3) Does the work plan have sufficient detail and practical steps for implementation?	15		
4) Has the research staff demonstrated an adequate level of experience in the area of research to perform the work?	15		
5) Are the facilities and equipment sufficient to meet the needs of the project?	10		
6) Does the total estimated cost for the research seem reasonable for the amount of work required?	10		
<b>SUB TOTAL:</b>			

For review area #7, please assign -50 to +50 discretionary points and/or deductions if warranted:

7) Discretionary Points and/or Deductions. [-50 to +50 points] <i>(Provide an explanation below for the discretionary points/deductions.)</i>		
<b>TOTAL POINTS:</b>		

(Sum of review areas 1 - 7)

Explanation for the discretionary points and/or deductions given:

Exhibit 1: Proposal Review Form

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Establish annual budget



Selection process review & implementation



Research idea solicitation



Annual work program development

# Project Management



## Project Management

- Day to day project management works to keep projects on scope and budget
- Focused on deliverables
- Engage steering committees and project sponsors

## Pooled Fund Management

- Pooled funds are great ways to leverage research dollars
- Identifying and selecting funds for participation should be interactive
- Must be included in the annual approved work program



Project management



Pooled fund management



# Outreach, Documentation and Implementation



## Outreach and Training

- National Exposure - Identify key conference participation opportunities
- Communication plans for program and projects
- Training for project sponsors (WVDOT) and researchers (Universities and Consultant)
- Coordinate Peer Exchanges

## Research Manual

- Research manual should provide clear information on the WVDOT program and its management
- Updates can occur as the program progresses through its first cycle to capture new and best practices

## Implementation Support

- Tech Transfer (T<sup>2</sup>) programs are critical for turning research into productive tools
- These projects do not have to be WVDOT-funded projects. NCHRP or other state research could be turned into tech transfer

## Compliance and Reporting

- Meet federal reporting requirements
- Establish and monitor performance metrics that matter



Outreach & training



Research manual update

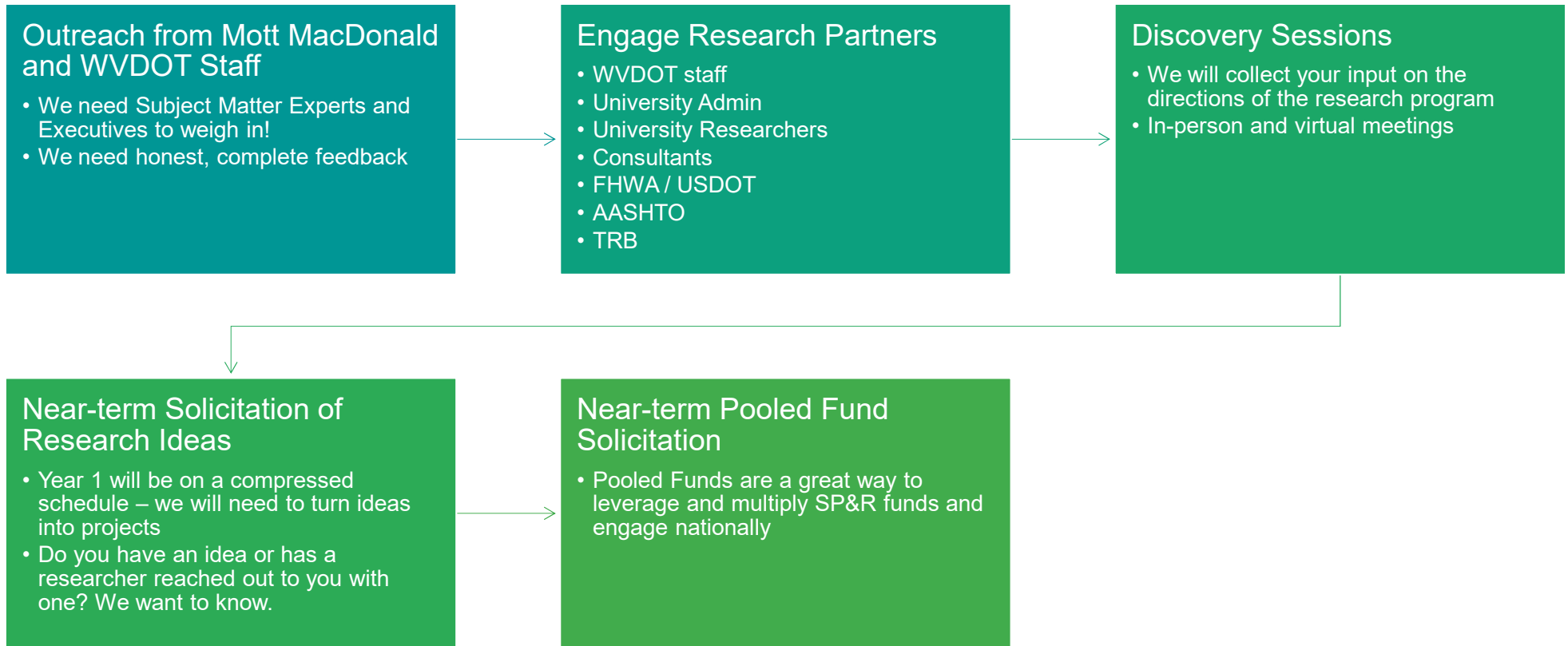


Implementation support



Compliance and Reporting

# What to Expect



Discovery sessions & current program review



Scheduling



# Thank You

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