TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Date: 1/18/2023

Lead Agency (FHWA or State DOT): FHWA

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

<table>
<tr>
<td>Transportation Pooled Fund Program Project #
<i>(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)</i>

TPF-5(487)</td>
<td colspan="2">Transportation Pooled Fund Program - Report Period:

☐ Quarter 1 (January 1 – March 31)

☐ Quarter 2 (April 1 – June 30)

☐ Quarter 3 (July 1 – September 30)

☒ Quarter 4 (October 1 – December 31)</td>
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<tr>
<td colspan="3">Project Title:
Traffic Management Center Pooled Fund Study</td>
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<tr>
<td>Name of Project Manager(s):
Jon Obenberger</td>
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202-493-3265</td>
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<tr>
<td>Lead Agency Project ID:
DTFH61-06-D-0004-T-11008</td>
<td>Other Project ID (i.e., contract #):</td>
<td>Project Start Date:
Feb. 1, 2000</td>
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<tr>
<td>Original Project End Date:
Sept. 30, 2010</td>
<td>Current Project End Date:
Apr. 16, 2027</td>
<td>Number of Extensions:
4</td>
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Project schedule status:

☑ On schedule   ☐ On revised schedule   ☐ Ahead of schedule   ☐ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
$ 5,748,774	$ 4,155,454	82

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
$ 101,654	$ 101,654	

Project Description:

The Transportation Management Center (TMC) Pooled Fund Study (PFS) serves as a forum to identify and address issues that are common among agencies that manage and operate TMCs and provides an opportunity for agencies to collectively take on those key issues and challenges. The TMC PFS also provides an opportunity to facilitate the interaction, sharing of information and successful practices with a broader audience to advance and improve upon the current state-of-the-practice related to the management, operation, and performance of TMCs.

The goal of the TMC PFS is to assemble regional, state, and local transportation management agencies and the Federal Highway Administration (FHWA) to:
- Identify human-centered and operational issues;
- Suggest approaches to addressing identified issues;
- Initiate and monitor projects intended to address identified issues;
- Provide guidance and recommendations and disseminate results;
- Provide leadership and coordinate with others with TMC interests; and
- Promote and facilitate technology transfer related to TMC issues nationally.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):
The following is the progress achieved on current TMC PFS projects:

Information and Analysis of TMC Staff and Staffing Contracts:
- The revised technical report was submitted in the 2nd quarter and comments submitted to the contractor for revisions.

Traffic Management System (TMS) Asset Management Planning and Life Cycle Cost Analysis:
- The revised draft report was submitted in the third quarter and comments submitted to the contractor for revisions.

Inventorying, Documenting and Configuring TMC Assets & Resources:
- The initial draft of the TMS Inventory, Documentation, and Configuration Current Practice Report was submitted on 8/30/22. Review comments were submitted to the contractor on 9/28/22.
- The final annotated outline for the TMS Inventory, Documentation, and Configuration Technical Report was submitted 11/1/22 and comments submitted to the contractor on 12/12/22.
- The final annotated outline for the Assessing TMSs Current Practices report was submitted 10/14/22 and comments submitted to the contractor on 11/7/22.

Applying Predictive Analytics into the real-time management and operation of traffic management systems (TMSs):
- The final annotated outline for the technical report was submitted on 8/12/22 and comments submitted to the contractor on 8/29/22 along with the approval to prepare the initial draft.

Sharing Information on TMS Emerging Topics
- Project kick-off meeting held 9/28/22 with contractor and TMC PFS members. The initial 3 topics for innovative practices for the contractor to address were provided prior to the kick-off meeting.

Sharing and Using Different Types of Data in Traffic Management Systems (TMS)
- Project kick-off meeting held 11/8/22 with contractor and TMC PFS members and the work plan was accepted.
- Draft white paper for initial three topics submitted.

Planning to Frame the Strategic Direction and Future Investments in TMS
- Project kick-off meeting held 9/12/22 with contractor and TMC PFS members and the work plan accepted.
- Draft white paper submitted 11/28/22 and comments were provided to the contractor on 12/16/22.
- Interview list and questions submitted 11/13/22 and approval provided on 11/26/22.

Using Social Media Information to Improve TMS Operations
- Project kick-off meeting held 11/14/22 with contractor and TMC PFS members and the work plan was accepted.
- Draft interview list and list of interview questions submitted 12/28/22 and comments provided on 12/29/22.

A quarterly conference call was conducted on 12/7/22. Members reviewed current progress on projects, selected additional topic ideas for the *Sharing Information and Practices on TMS Emerging Topics* project, and reviewed and prioritized (via member voting) new projects to advance for further consideration at the May 2023 Annual Meeting.

The PFS held a Virtual Technical Exchange amongst members on 11/2/22 focusing on *ATMS Software Functions and Features (Part I).* These quarterly meetings provide a forum for members to exchange information on topics of interest.

Anticipated work next quarter:

TMC PFS Meetings: The next TMC PFS quarterly meeting is scheduled for 3/1/23, where key discussion topics will include member updates, prioritizing topics for further concept development and consideration as potential new projects in 2023, and finalizing the agenda and logistics for the 2023 Annual Meeting. Additionally, the next TMC PFS Virtual Technical exchange on *TMS Software Functionality and Features (Part II)* is scheduled for 2/2/23.

Information and Analysis of TMC Staff and Staffing Contracts:
- Final technical report is expected in the first quarter.

Traffic Management System (TMS) Asset Management Planning and Life Cycle Cost Analysis:
- Final technical report is expected in the first quarter.

Inventorying, Documenting, Configuring, and Assessing Traffic Management Systems (TMSs):
- The revised draft report for TMS Inventory, Documentation, and Configuration Current Practices report expected in the first quarter.
- The final annotated outline and initial draft for the TMS Inventory, Documentation, and Configuration Technical Report expected in the first quarter.
- The initial draft and final Assessing TMSs Current Practices report is expected in first quarter.

Applying Predictive Analytics into the real-time management and operation of traffic management systems (TMSs):
- Initial draft and final technical report expected in the first quarter.
- Initial and final technical presentation expected in the first quarter.

Sharing Information on TMS Emerging Topics
- Initial white papers for first six topics identified for the project submitted and accepted.
- Initial drafts of the fact sheets and technical presentations for the first three topics submitted.

Sharing and Using Different Types of Data in Traffic Management Systems (TMS)
- Interviews completed and final white paper submitted and accepted.

Using Social Media Information to Improve TMS Operations
- Interviews completed and final white paper submitted and accepted.

Planning to Frame the Strategic Direction and Future Investments in TMS
- Interviews completed and final white paper submitted and accepted.
- Initial outline for the technical report submitted.

The PFS will be advancing two new projects in 2023 and will prepare the scopes of work and procurement documents for these projects. These projects include:
1. Developing or Updating Staffing Plans for TMS and Methods to Identify Staffing Needs
2. Enabling the Sharing and Use of Open-Source or Agency Owned Software and Application Programming Interfaces

Significant Results:

The PFS established a new SharePoint-based Collaboration Portal that all members will have access to in the fourth quarter. The Portal allows the sharing of resources (including procurement documents) between members, enables collaboration on documents and technical reviews, and provides an easy medium for polling/surveying members.

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

No issues have been identified or encountered to date.

Potential Implementation:
The next quarterly meeting of the TMC PFS is scheduled for 3/1/23. The scope of work and procurement documents will be developed in the first quarter to initiate the new projects selected to be advanced in 2023.