



North/West Passage
Transportation Pooled Fund Study
TPF-5(190)
Q1 2011 Status Report
January 1 – March 31, 2011

Project Description

The North/West Passage Transportation Pooled Fund (TPF) Study is a multi-state cooperative program for the coordination, development, and deployment of Intelligent Transportation Systems (ITS) along the I-90 and I-94 corridor. The states of Washington, Idaho, Wyoming, Montana, North Dakota, South Dakota, Minnesota, and Wisconsin began meeting in February 2002 to discuss the development of a North/West Passage multi-state transportation program. The states formally established as a TPF Study through the Federal Highway Administration (FHWA) in 2003. FHWA serves as a monitoring body, providing strategic and technical input. Minnesota serves as the Program Administrator and a Steering Committee consists of one representative from each of the states that have financially contributed to the effort. The Steering Committee meets monthly or as necessary to provide overall program direction.

North Dakota, Minnesota, and Wisconsin contributed funding for the execution of a Phase 1 work plan. The Phase 1 work plan included eight projects, the purpose of which was to implement and evaluate integrated traveler information systems and coordinate maintenance operations across state borders. Individual reports for the projects completed under the Phase 1 work plan are available online at www.nwpassage.info. A full Phase 1 summary report is also available online.

Additional contributions were made by all of the states for the execution of a Phase 2 work plan, which focused on developing a strategic plan for the corridor. Focusing on traveler information and maintenance operations, the plan presents an inventory of ITS deployments in the corridor; provides a high-level architecture; analyzes targeted concepts/solutions; and, proposes a coordinated deployment and operational concept for traveler information systems and maintenance operations across state borders. The Steering Committee elected to wait until the strategic plan is further developed before identifying a more complete list of projects for further implementation in the corridor.

The balance of funds contributed during the Phase 2 solicitation were applied to a Phase 3 work plan. The Phase 3 work plan included five projects that focused on continuing to develop, expand implementation, and evaluate integrated traveler information systems. The projects also continued the understanding and development of coordinated maintenance operations across state borders.

A Phase 4 work plan was approved and five projects moved forward. Projects included enhancing the traveler information website (www.i90i94travelinfo.com), researching call forwarding between states, and exploring regional permitting for the corridor as well as detailing center to center communications between states. All five work plan 4 projects were completed by September 2010.

The Phase 5 work plan was approved in 2010. Six projects were funded from the work plan. The projects include developing a cost/benefit ITS tool, share details of Wyoming's citizen reporting program and identifying enhancements, conducting a workshop to establish a set of consistent phrases to be used on DMS along the North/West Passage Corridor, developing a best practice document summarizing mobile weather and road condition measurement and reporting systems, continuing subcommittee meeting discussions from work plan 4 to explore regional permitting, and educating North/West Passage members on how to acquire, modify, maintain and integrate open source software.

Status/Progress This Quarter

Phase 5 Work Plan Projects

- Project 5.1 Citizen Assisted Reporting Feasibility Study
Share details of Wyoming's citizen reporting program, research citizen reporting expansion to other North/West Passage (NWP) states, and investigate social media options for reporting conditions to improve Wyoming's citizen reporting system.
 - A summary document of citizen reporting problems, needs, and strategies was presented at the February 8, 2011 Conference Call.
 - Work continued on investigating if other technologies such as social media, email entries or an internet based entry tool could be used for reporting conditions. Scenarios of how each technology could be used are being developed as well as suggested deployment options.

- Project 5.2 Cost/Benefit ITS Tool Evaluation
Evaluate New York State DOT's Evaluation Model for Freeway ITS Scoping (EMFITS) and determine if it provides a valid and acceptable approach to ITS project cost/benefit determination. In addition the project will look at how the tool can be expanded to typical rural North/West Passage applications.
 - Athey Creek continued to develop a cost/benefit tool spreadsheet will ask a user a series of questions and then based on the response it would generate a financial benefit for the proposed ITS device deployment location.

- Project 5.3 Consistent and Coordinated Dynamic Message Sign (DMS) Use Workshop
Conduct a workshop to establish a set of consistent phrases to be used on DMS along the NWP as well as develop a plan for coordinated DMS.
 - Scope of work was approved and the appropriate workshop attendees from each state were identified.
 - The workshop was scheduled for May 19 and 20, 2011 in conjunction with the North/West Passage Annual Meeting.

- Project 5.4: Use of Mobile Sensors & Maintenance Decision Support for Automated Road Condition Reporting
Develop a best practice document summarizing mobile weather and road condition measurement and reporting systems, and research approaches toward automating road condition reporting using Maintenance Decision Support Systems (MDSS) and mobile monitoring devices.
 - RFP scope of work approved and submitted to Mn/DOT.

- Project 5.5: NWP Regional Permitting – Phase 2
Continue subcommittee meeting discussions from Phase 1, identify opportunities to reduce confusion of regulations/requirements between jurisdictions, conduct a basic permit requirements inventory, research XML permit concepts, and work with the 5 NWP states that are not part of WASHTO to join, not join, or expand WASHTO

- Contract executed and kick-off meeting scheduled.
- Project 5.6: Facilitating the Use of Open Source Software Throughout the Corridor
Educate NWP on how to acquire, modify, maintain and integrate open source software.
- Scope of work drafted.

Steering Committee

The Steering Committee provides overall program direction. The committee held three teleconference meetings during the 1st Quarter. The following bullets summarize the meeting discussions.

- Steering Committee Meeting on January 11, 2011
The primary focus of this meeting was to review the work to date Project 5.2, discuss the schedule for completing Work Plan 6, and discuss the status of Work Plan 5 projects.
- Steering Committee Meeting on February 8, 2011
The primary focus of this meeting was to discuss Work Plan 6 project ideas, discuss Project 5.1 in detail, and discuss the status of Work Plan 5 projects.
- Steering Committee Meeting on March 8, 2011
The primary focus of this meeting was to continue to discuss Work Plan 6 projects ideas, discuss the feedback and statistics from the traveler information website, discuss Project 5.3 workshop logistics, and discuss the status of Work Plan 5 projects.

Status/Progress Anticipated Next Quarter

- Steering Committee Meetings in April, May, and June.
- Project 5.1 Citizen Assisted Reporting Feasibility Study
A next draft of the project report will be presented at the May 2011 Annual Meeting.
- Project 5.2 Cost/Benefit ITS Tool Evaluation
The next version of the cost/benefit tool spreadsheet will be presented at the May 2011 Annual Meeting.
- Project 5.3 Consistent and Coordinated Dynamic Message Sign (DMS) Use Workshop
Distribute a draft agenda to the workshop participants, conduct interviews with each NWP state prior to the workshop to gain information regarding current DMS procedures, and conduct the workshop.
- Project 5.4: Use of Mobile Sensors & Maintenance Decision Support for Automated Road Condition Reporting
Execute a contract with the selected contractor.
- Project 5.5: NWP Regional Permitting – Phase 2
Hold the kick-off meeting for the project.
- Project 5.6: Facilitating the Use of Open Source Software Throughout the Corridor

A webinar or workshop will be conducted in 2011 if Wyoming DOT transitions to deploying IRIS (Minnesota's open source control software). Wyoming DOT would be able share firsthand the benefits and drawbacks of implementing open source software. The webinar will also include the open source software mobile apps for checking traveler information that Washington DOT has developed.

Work Plan 1 Financial Summary

The following commitments were made during the Phase 1 solicitation.

- North Dakota \$25,000 (SP&R Dollars)
- Minnesota \$50,000 (SP&R Dollars), plus \$102,576 (State funds)
- Wisconsin \$25,000 (80/20 I-90/94 Earmark Dollars)

Work Plan 2 and 3 Financial Summary

The eight states in the corridor committed \$450,000 through a solicitation. Following is a summary of the financial contributions by individual members. Because funding is comprised of various state and federal sources, FMIS will track SP&R dollars and Mn/DOT administered and tracked other state and federal dollars through partnership agreements with the corresponding states.

- Idaho \$50,000 (Federal and State Dollars)
- Minnesota \$150,000 (SP&R Dollars)
- Montana \$25,000 (Source Unknown)
- North Dakota \$25,000 (SP&R Dollars)
- South Dakota \$50,000 (SP&R Dollars)
- Washington \$50,000 (State Dollars)
- Wisconsin \$50,000 (Federal and State Dollars)
- Wyoming \$50,000 (Federal and State Dollars)

Work Plan 4 Financial Summary

The eight states in the corridor committed \$200,000 through a solicitation. Following is a summary of the financial contributions by individual members. Because funding is comprised of various state and federal sources, FMIS will track SP&R dollars and Mn/DOT administered and tracked other state and federal dollars through partnership agreements with the corresponding states.

- Idaho \$25,000 (SP&R Dollars)
- Minnesota \$25,000 (SP&R Dollars)
- Montana \$25,000 (SP&R Dollars)
- North Dakota \$25,000 (SP&R Dollars)
- South Dakota \$25,000 (SP&R Dollars)
- Washington \$25,000 (SP&R Dollars)
- Wisconsin \$25,000 (SP&R Dollars)
- Wyoming \$25,000 (Federal and State Dollars)

Project Manager (Program Administrator)

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