

North/West Passage Transportation Pooled Fund Study



Mark Nelson, Minnesota DOT

TMC Pooled Fund Study Annual Meeting

June 10, 2004

Background

- December 7, 2001 – Minnesota Guidestar approved the development of a multi-state project to coordinate ITS deployments along I-90 and I-94
- February 25, 2002 – Representatives from Washington, Idaho, Montana, North Dakota, South Dakota, Wyoming, Minnesota, and Wisconsin held a workshop to discuss the development of a coalition along I-90 and I-94
- June 2002 – Pooled Fund Study Solicitation
- January 2003 – Pooled Fund Study Re-Solicitation
- North Dakota, Minnesota, and Wisconsin secured approval and funding to initiate the development of a North/West Passage Transportation Pooled Fund (TPF) study
- Other I-90 and I-94 states have continued to express interest in the project, but do not have funding secured to participate at this time



Goal and Vision of TPF Study

Goal of North/West Passage TPF Study

Implement and evaluate integrated traveler information systems and coordinate maintenance operations across state borders.

Long-Term Vision of North/West Passage TPF Study

Influence ongoing standards development; operate database systems that can transmit and receive multiple data streams; and, utilize effective methods for sharing, coordinating, and integrating traveler information across state borders.

Current Status

- Minnesota DOT is the lead organization for the TPF Study
- Minnesota, North Dakota, and Wisconsin have pooled \$100,000 for Phase I projects
- Minnesota DOT hired URS to provide project management support
- Minnesota, North Dakota, and Wisconsin approved a Work Plan in December 2003 that identified projects to pursue as Phase I of the TPF Study
- Phase I projects started in March 2004



Phase I Projects Summary

Project Name	Project Champion(s)	Project Cost
1.1 Integrate ND, WI, and MN Reporting Systems	Mark Nelson, Mn/DOT	\$29,500
1.2 Deploy Limited CARS Application for WI	Phil DeCabooter, WisDOT	\$7,500
1.3 Develop Automated Road Condition Reporting System (Possible Future Project)	Mark Nelson, Mn/DOT	\$00
1.4 Provide Integrated Communications Capabilities for ND DMS (Possible Future Project)	Ed Ryen, NDDOT	\$00
1.5 Preliminary Design for DMS Deployment on I-94 Eastbound in ND	Ed Ryen, NDDOT Dennis Redig, Mn/DOT	\$12,000
1.6 Preliminary Design for DMS Deployment at the I-94 and I-90 split in Tomah, WI	Phil DeCabooter, WisDOT	\$12,000
1.7 Develop a North/West Passage Web Site	Ayman Smadi, NDSU	\$4,000
1.8 Develop a Communications Plan for the De-Icing System to be installed on the I-94 Bridges at Red River	Dennis Redig, Mn/DOT	\$20,000
1.9 Develop a Lessons Learned Document Comparing Requirements for CARS Deployment in WI to Meridian's Planned Reporting System in ND	Ayman Smadi, NDSU	\$15,000
Total Cost of Phase I Projects		\$100,000*

**Total does not include costs for admin, travel, meeting or consultant support services.*

Project 1.1

Integrate North Dakota, Wisconsin, and Minnesota Reporting Systems

 **Create seamless access to traveler information**

Road conditions & Weather information

 **MN – CARS ND - #SAFE WI – n/a**

Project Champion




Mark Nelson, Mn/DOT

NWP Cost

\$29,500

Project 1.2

Deploy Limited CARS Study Application for Wisconsin

-  Test deployment of CARS system along I-94
-  Key staff to manually input road conditions
-  Wisconsin staff to study and become familiar with using CARS

Project Champion

Phil DeCabooter, WisDOT

NWP Cost


\$7,500


Phase I Projects

Project 1.3

Project Tabled

Develop Automated Road Condition Reporting System

 Develop, test, & evaluate automated road condition reporting system to improve traveler information

 Project tabled due to the separate and on-going Maintenance Decision and Support System (MDSS) project

Project Champion

Mark Nelson, Mn/DOT

NWP Cost





Project Tabled

Phase I Projects

Project 1.4

Project Tabled

Provide Integrated Communications Capabilities for North Dakota DMS

-  Allow district border offices to remotely operate DMS
-  Utilize a central control software
-  Coordinate messages across state boundaries
-  Project tabled due to ND receiving grant money to upgrade their DMS to NTCIP compliance

Project Champion

Ed Ryen, NDDOT




NWP Cost

Project Tabled

Phase I Projects

Project 1.5

Preliminary Design for DMS Deployment on I-94 Eastbound in North Dakota

-  Install DMS on Eastbound I-94 Approaching Minnesota.
-  Complement MN DMS for westbound travelers
-  Receive coordinated traveler information at state boundary

Project Champions


NWP Cost

Ed Ryen, NDDOT & Dennis Redig, Mn/DOT

\$12,000

Project 1.6

Preliminary Design for DMS Deployment at the I-94 & I-90 Split at Tomah, Wisconsin

 Provide long-distance westbound travelers road condition information to make early and safer decisions

 Concept of operations plan support for corridor wide DMS deployment

Project Champion

Phil DeCabooter, WisDOT

NWP Cost

\$12,000

Project 1.7

Develop a North/West Passage Program Website

 Provide easy access to North/West Passage information

 Communicate and educate public about North/West Passage Pooled Fund Study

 Information available on demand

Project Champion

Ayman Smadi, NDSU




NWP Cost

\$4,000

Phase I Projects

Project 1.8

Develop a Communications Plan for the De-Icing System to be Installed on the I-94 Bridges at Red River

-  Preliminary work for future de-icing system
-  Project will address communication design and operational agreement
-  Will allow for automated de-icing of critical road during hazardous bridge conditions

Project Champion

Dennis Redig, Mn/DOT

NWP Cost

\$20,000

Project 1.9

Develop a Lessons Learned Document Comparing Requirements for CARS Deployment in Wisconsin to Meridian's System Deployment in North Dakota



Identify typical requirements for developing a road condition reporting system

Survey available systems, use deployment as case study, identify agency issues/requirements



Guide other states in deploying similar projects

Project Champion

Ayman Smadi, NDSU

NWP Cost

\$15,000



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