

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Cost-Benefit of Various Winter Maintenance Strategies*

OBJECTIVES: • Assess and communicate the costs and benefits of at least three winter maintenance strategies to understand the safest and most cost-effective approach based on the desired level of service (LOS)

PERIOD COVERED:

January 1, 2015 – March 31, 2015

PARTICIPATING AGENCIES:

Western Transportation Institute, Montana State University – Prime
SRF Consulting Group, Inc.- Subcontractor

PROJECT MANAGER: Tom Peters

SP&R PROJECT NO:

PROJECT IS:

LEAD AGENCY: Mn/DOT

TPF-5(218)

Planning

MnDOT Contract No.
99006

Research & Development

PRINCIPAL INVESTIGATOR:

David Veneziano, Ph.D.

ANNUAL BUDGET:

\$121,730

PROJECT EXPENDITURES TO DATE:

\$86,179

WORK COMPLETED:

Project Management

Project management activities during the quarter were focused on budget and timeline maintenance. Due to extensive feedback and revisions during Task 2, the project required a no cost time extension, which has been granted through July 31, 2015. The project is on budget and time based on this revised end date.

Task 1. Review Existing Research (96% completed)

No work was completed on this task during the past quarter.

Task 2. Survey (90% completed)

Based on the results of Task 1 and informational gaps from existing research that were identified, the Technical Panel and researchers convened for a teleconference on January 28, 2015 to discuss next steps. During that call, it was decided that a second survey should be administered to solicit information specific to advanced materials and practices. That survey was distributed in late February (following an initial, short survey to obtain contact information from agencies). A total of 10 responses were obtained from that survey, and those responses did not fill in the data gaps that existed for advanced materials. In light of this, follow-up telephone interviews are now being conducted with approximately 20 contacts/agencies who provided information on the earlier survey indicating they use such materials. These interviews are anticipated to conclude in early April, with the resulting data feeding into Task 3.

Task 3. Analysis and Organization (50% completed)

The researchers made an initial analysis of the data from the survey of Task 2 based on the first and second surveys that were conducted. This led to the identification of information gaps that are being addressed through follow-up telephone interviews. During the quarter, initial work was completed on a master matrix of data collected to date. This matrix presents the specific costs and benefits (and any other pertinent information) of each of the strategies of interest. Based on the information of interest and that which has been collected, this matrix is quite large, and upcoming efforts will seek to make the presentation more manageable, likely breaking information out into sub-matrices based on the specific cost or benefit aspect being covered (ex. material cost, quantified benefits to safety, etc.).

Task 4. Final Report (10% completed)

The researchers will prepare and submit a final report of the work completed, including an executive summary, introduction, methodology, results for each task, the cost and benefit matrix, and conclusions.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Work in the coming quarter will consist of concluding follow-up telephone interviews from Task 2, and completing Task 3 and Task 4: Work on Task 3 will continue the development of an information matrix and characterization of cost and benefit information for the strategies of interest, based on the information collected via surveys and telephone interviews. This work will feed into Task 4, which is the development of the final report.

STATUS AND COMPLETION DATE:

On time and on schedule. Completion date – July 31, 2015