

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** *Synthesis of Material Application Methodologies for Winter Operations*

**OBJECTIVES:** The goal of this research is to “create a synthesis of best management practices for application rates, material application methodologies and material usage, including chloride brines applied directly or as additives to abrasives and rock salts”.

**PERIOD COVERED:**

April 1, 2016 – June 30, 2016

**PARTICIPATING AGENCIES:**

Washington State University – Prime  
Monte Vista Associates LLC - Consultant

**PROJECT MANAGER:** Tom Peters

**SP&R PROJECT NO:**  
MnDOT No. 1001326

**PROJECT IS:**

**LEAD AGENCY:** Mn/DOT

Federal Project No.  
TPF-5(218)

Planning  
 Research & Development

**PRINCIPAL INVESTIGATOR:**

Xianming Shi, Ph.D., P.E.

**ANNUAL BUDGET:**

\$117,658

**PROJECT EXPENDITURES TO DATE:**

\$2,150

**WORK COMPLETED:**

*Project Management*

A project kickoff meeting/teleconference was conducted on May 6, 2016 to discuss the project scope with the project panel.

Task 1. Literature review (25% completed)

The WSU team has started the comprehensive search of past and current research, both nationally and internationally, on this subject. This will result in the preparation of a literature review, highlighting current practices, innovative practices, and trends related to materials used, their application rates, and the application methodologies and equipment under various road weather scenarios (temperature ranges, storm conditions, and other climate and operating conditions).

Task 2. Interview Plan (15% completed)

The WSU team has started developing a plan for gathering detailed information about material application approaches via phone or in-person interviews. The list of agencies to contact has been drafted as well. Both were submitted to the project panel for review.

Task 3. Interviews (0% completed)

Task 4. Guidebook (0% completed)

Task 5. Final report (0% completed)

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

Work in the coming quarter will consist of project management as well as the completion of Task 1 and Task 2 and some work in Task 3.

**STATUS AND COMPLETION DATE:**

On budget but three months behind the originally proposed schedule below, due to delay in getting the contract in place. The revised Completion date is now November 2017.

Work Tasks	Milestone Dates	CY2016												CY2017					
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Project Commencement	Feb. 25, 2016	☘																	
Project Management	QPRs			◊			◊			◊			◊						
Task 1. Literature review	Apr/June 2016			★		★													
Task 2. Interview plan	May/July 2016				★		★												
Task 3. Interviews	Nov'16/Jan. 2017							☘			★		★						
Task 4. Guidebook	Jan/March 2017								☘				★		★				
Task 5. Final report	Mar/May 2017														★		★		
Task 6. Final presentation	Apr/June 2017															★	★		
		☘	★		◊														
		Teleconference		Deliverable		Quarterly Progress Report													