

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Snow Removal Performance Metrics*

OBJECTIVES: The goal of this research is to “*identify effective performance metrics for snow and ice maintenance operations.*”

PERIOD COVERED:

October 1, 2015– Dec. 31, 2015

PARTICIPATING AGENCIES:

Washington State University – Prime
The Narwhal Group – Subcontractor
Monte Vista Associates LLC - Subcontractor

PROJECT MANAGER:

Tom Peters, MnDOT

SP&R PROJECT NO:

MnDOT Contract No.
06910

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY: MnDOT

Federal Project ID:
TPF-5(218)

PRINCIPAL INVESTIGATOR:

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

ANNUAL BUDGET:

\$74,640

PROJECT EXPENDITURES TO DATE:

\$30,762

WORK COMPLETED:

Project Management

Project management activities during the quarter were focused on budget and timeline maintenance as well as management of subcontracts.

Task 1. Literature review (90% completed)

The WSU team conducted a comprehensive literature review and prepared a draft literature review for the project panel to review. During the fall of 2015, a revised literature review document was submitted to the project panel again, with all the previous review comments addressed. We will complete this task by adding any new references published before this project's end date.

Task 2. Survey (90% completed)

During the fall of 2015, a revised survey instrument was submitted to the project panel again, with the review comments addressed. The approved survey was then implemented online and distributed out to the snow/ice control community to gather information. During the last quarter, The Narwhal Group assisted the WSU team in this task, further reaching out to state DOTs, city and county public works departments, Canadian ministry of transportation and other international government agencies, and private maintenance firms. A total of more than 40 responses have been received.

Task 3. Analysis and Matrix Development (20% completed)

During the last quarter, The Norwhal Group assisted the WSU team in this task and we have started preliminary analysis of the survey responses while following up on some of them.

Task 4. Recommendations (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 2 and Task 3.](#)

STATUS AND COMPLETION DATE:

On budget but about two months behind schedule. We will try to speed up in the next quarter in order to maintain the current project completion date – July 31, 2016. The original schedule is provided as follows.

Work Tasks	Milestone Dates	CY2015									CY2016			
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Project Commencement	May. 1, 2015	✚												
Project Management	QPRs			◊			◊			◊			◊	
Task 1. Literature Search	May. 2015	★												
Task 2. Survey	July/Aug/Sept. 2015			✚	★	★								
Task 3. Analysis and Matrix Development	Nov. 2015 & Jan. 2016								✚		★			
Task 4. Recommendations	Feb. - Apr. 2016										✚	★	★	