

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Understanding the Effectiveness of Non-Chloride Liquid Agricultural By-Products and Solid Complex Chloride/Mineral Products Used in Snow and Ice Control Operations*

OBJECTIVES: • Determine and document the effectiveness and impacts of non-chloride liquid agricultural by-products and solid complex chloride/mineral products used in snow and ice control operations; and
• Unravel the mechanisms (if any) by which these products contribute to anti-icing, deicing, corrosion inhibition, etc.

PERIOD COVERED:

July 1, 2015 – September 30, 2015

PARTICIPATING AGENCIES:

Western Transportation Institute, Montana State University – Prime
Monte Vista Associates LLC, Arizona - Subcontractor
MLT Group LLC, Minnesota - Subcontractor

PROJECT MANAGER: Tom Peters

SP&R PROJECT NO:

PROJECT IS:

LEAD AGENCY: Mn/DOT

TPF-5(218)
Contract#99006

Planning
 Research & Development

PRINCIPAL INVESTIGATOR:

Laura Fay

ANNUAL BUDGET:

\$191,238

PROJECT EXPENDITURES TO DATE:

\$168,545

WORK COMPLETED:

Project Management

We worked with the project panel and the subcontractor the MLT group to modify the contract to allow for additional footage to be captured for use in Task 7.

Task 1. Literature Review (100% completed)

The draft literature review was submitted and some minor comments were received from the panel. These comments (along with more recent literature) have been addressed and will be incorporated into the Task 5 manual and Task 6 final report.

Task 2. Identify Products (100% completed)

The team has identified the 10 products commonly for further investigation.

Task 3. Survey (100% completed)

The team surveyed experts at state and local agencies to gather their experience with the use and performance of such alternative deicing products. After approval by the Clear Roads panel, the survey questionnaire was distributed to the Clear Roads member State DOTs and APWA Subcommittee on Winter Maintenance. A total of 31 responses were received from 16 different states. The survey results have been summarized.

Task 4. Laboratory Testing (100% completed)

The laboratory testing has been completed for ten selected products, and deicer mechanism testing for the four selected products. The laboratory testing results have been summarized.

Task 5. Development of a Best Practices Manual (100% completed)

This task has been revised based on TAC comments, and the revised version of the Task 5 Best Practices Manual has been inserted into the Task 6 Final Report. A document was submitted to the TAC reviewing how the comments were addressed.

Task 6. Final Report and Presentation (100% completed)

The final report has been developed and was submitted to the TAC in this quarter for review and comment.

Task 7. Video (80% completed)

The MLT Group has used collected footage to develop a 13 minute video that summarizes the findings of this research project. A voice over script was submitted in this last quarter to the project TAC for review and comment. The final step to complete this task is approval of the voice over script by the TAC, after which the voice over work will be completed and the finished video will be submitted for review and comment.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Efforts in the next quarter will include a meeting with the TAC to discuss the findings and content of the Task 6 Final Report deliverable and address any comments from the project panel. Any feedback from the TAC on the Task 7 Video voice over script will be addressed and the Task 7 Video will be finalized and submitted for review. Work in the coming quarter will focus on any necessary revisions to the Task 6 Final Report and Presentation, and Task 7 Video.

STATUS AND COMPLETION DATE:

The project is on budget. The final deliverables are due Sept. 30, 2015, while the contract end date is 11/30/2015. Additional time may be necessary for the review and finalization of the Task 6 Final Report and Task 7 Video.