

State Planning and Research Program Quarterly Report

PROJECT TITLE: Determining the Migration of Chloride-Based Deicers through Different Soil Types

OBJECTIVES: This project aims to achieve a clear, quantitative picture of the physicochemical properties of various types of soils (texture-based, commonly used in the areas of interest) and migration behavior of selected deicers through these soil types.

PERIOD COVERED: Jan. 1 - March 31, 2026

PARTICIPATING AGENCIES: Minnesota Department of Transportation, Clear Roads Pooled Fund, Washington State University, and Roadtech, Inc.

PROJECT MANAGER:
Hafiz Munir / Adam Wellner

SP&R PROJECT NO:
MnDOT No. 1047792

PROJECT IS:

LEAD AGENCY: MnDOT

Federal Project No.
TPF-5(353)

Planning

Research & Development

PRINCIPAL INVESTIGATOR:
Xianming Shi, Ph.D., P.E., WSU

ANNUAL BUDGET:
\$99,980

PROJECT EXPENDITURES TO DATE:
\$99,980

WORK COMPLETED:

Project Management: The PI submitted quarterly progress report in Jan. 2026. A recent contract amendment (no-cost time extension) was approved, this extended the project end date to April 30, 2026. Note that the final project webinar was held on March 9, 2026, for the team to present the entire project to the Clear Roads advisory board and to receive feedback.

Task 1. Literature Review and Survey (100% complete).

Task 2. Developing the Testing Plan (100% complete).

Task 3: Execution of the Testing Plan (100% complete).

Task 4. Additional Lab Testing (100% complete).

Task 5. Preparing one-page fact sheets: 100% complete. The TAC feedback on the fact sheets was addressed in the last quarter.

Task 6. Final Report: 95% complete. The team submitted the draft final report and received feedback from the project TAC and subsequently addressed the review comments during the last quarter.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Work in the coming quarter will consist of minor edits to ensure section 508 compliance of the project final report.

STATUS AND COMPLETION DATE:

The updated project timeline is as follows. Contract end date is 4/30/2026.

Task	Current Task Start Date	Current End Date for Task Approval	Revised Task Start Date	Revised Due Date to Submit Draft Deliverables	Revised End Date for Task Approval
1	06/01/2022	03/31/2023	No Change	No Change	No Change
2	12/01/2022	03/31/2023	No Change	No Change	No Change
3	04/01/2023	6/30/2025	No Change	10/30/2025	11/30/2025
4	08/01/2024	6/30/2025	No Change	10/31/2025	11/30/2025
5	09/01/2024	8/31/2025	12/01/2024	11/31/2025	12/31/2026
6	11/01/2024	09/30/2025	07/01/2025	01/31/2026	03/31/2026