

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** Effective Pre-Treatment Method for Events Beginning as Rain

**OBJECTIVES:** The goal of this project is to evaluate pre-treatment options to determine their ability to effectively withstand rainfall through experimentation with the most common deicing materials in use. This research will document the effectiveness of these materials, mixed-in varying proportions and application rates, to determine their effectiveness.

**PERIOD COVERED:** January 1 – March 31, 2026

**PARTICIPATING AGENCIES:** Minnesota Department of Transportation, Clear Roads Technical Advisory Committee, and the University of Minnesota.

**PROJECT MANAGER:**  
Hafiz Munir / Adam Wellner

**LEAD AGENCY:** MnDOT

**PRINCIPAL INVESTIGATOR:**  
Andy Erickson, St. Anthony Falls  
Laboratory, University of Minnesota

**SP&R PROJECT NO:**  
MnDOT Contract No.  
1057601

Federal Project Number:  
TPF-5(479)

**PROJECT IS:**

Planning  
 Research & Development

**ANNUAL BUDGET:** ~\$75,000  
**PROJECT BUDGET:** \$149,999

**PROJECT EXPENDITURES TO DATE:** \$11,699.77

**WORK COMPLETED:**

- Task 1: Communications: We held a project team meeting on 12/15/2025 to discuss draft survey questions and received excellent feedback. We also had regular communication with the project administrator (Greg Waidley), who helped us distribute the survey to the project team and other interested parties.
- Task 2: Review of Literature and Available Data: The literature review was nearly complete as of the end of this quarter (3/31/2026) and will be delivered in April 2026. Very little studies have been conducted on this topic.
- Task 3: Survey of State DOTs: The survey was distributed to the Clear Roads TAC on February 23, 2026, and kept open until April 1, 2026, at the request of Clear Roads members.
- Task 4: Testing Protocol Development and Experiments: The project team is discussing the possible testing methods based on the initial survey results and the literature review.

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

- Task 1: Continued communications.
- Task 2: Project team review of the draft literature review; research team revisions, final submission.
- Task 3: Survey results analyzed and drafted into a memo to be reviewed by the project team, revised by the research team, and submitted as final.
- Task 4: Based on the final versions of the literature review and the survey, the testing protocol and experiments will be developed.

**STATUS AND COMPLETION DATE:** On track and within budget.