

**State Planning and Research Program  
Quarterly Report**

**PROJECT TITLE:** *Using GIS to Highlight Highway Segments Sensitive to Deicing Materials*

**OBJECTIVES:** Develop a geospatial tool that incorporates data about roadways, topography, hydrology, and ecology to model the impact of de-icing chemical application on the local environment.

**PERIOD COVERED:** October 1 to December 31, 2021

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

**PROJECT MANAGER:**  
Hafiz Munir / Tom Peters

**SP&R PROJECT NO:**  
MnDOT Contract No.  
1044529

**PROJECT IS:**

Planning  
 Research & Development

**LEAD AGENCY:** MnDOT

Federal Project Number:  
TPF-5(353)

**PRINCIPAL INVESTIGATOR:**  
Mark Gallagher, SRF Consulting

**ANNUAL BUDGET:** \$ 49,279

**PROJECT EXPENDITURES TO DATE:** \$ 30,592.83

**WORK COMPLETED:**

- Finalized Literature Search
- Received and compiles survey responses
- Submitted draft survey results memorandum draft
- Received comments on survey memorandum draft
- Compiled draft prioritization matrix
- Scheduled update meeting with committee to review prioritization matrix

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

- Finalize prioritization matrix
- Design geospatial tool
- Develop “alpha” level geospatial tool
- Submit draft “Compile and Analyze Results” memorandum

**STATUS AND COMPLETION DATE:**

Project start was delayed due to committee availability for kickoff. Final completion is not expected to be affected. Contract expiration date is 7/31/2022.