

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, 2022

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: \$ 112,800.58

REVISED: \$71,116

PROJECT BUDGET: \$142,430.28

WORK COMPLETED:

- Developed revised version of GIS tool
- Assessed use cases for sensitivity/weighting adjustments of data layers
- Developed use guide document
- Developed script for use guide video

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Continue work on expanded scope items
 - Revise tool functionality to make high-medium-low categorization simpler.
 - Revise raster to vector data conversions process
 - Continue work on expanded documentation, including instructional videos

STATUS AND COMPLETION DATE:

Project start was delayed due to committee availability for kickoff.

Some delays in tool development and initial installations by beta testers have made an extension of completion date for delivery of a revised tool attractive. Discussions are underway to extend the completion date to December 31, 2022 and increase the budget by roughly 10%

Based on committee requests a more comprehensive amendment was submitted. Work is expected to resume in late 2022.

Current contract expiration date is 7/31/2022 , however an extended expiration date may be needed to accommodate the GIS development work, which is necessary for the expanded documentation tasks.