

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Using Vegetation Management Practices Near Roads to Leverage the Benefits of Solar Radiation*

OBJECTIVES: Based on literature and field research, prepare a Vegetation Management Guide with recommendations regarding removal of roadside vegetation to benefit winter maintenance operations.

PERIOD COVERED: July 1 to September 30, 2025

PARTICIPATING AGENCIES: Minnesota Department of Transportation, Clear Roads Technical Advisory Committee, and Bolton & Menk, Inc.

PROJECT MANAGER:
Hafiz Munir / Sheila Johnson

LEAD AGENCY: MnDOT

PRINCIPAL INVESTIGATOR:
Carolyn Dindorf, Bolton & Menk, Inc.

SP&R PROJECT NO:
MnDOT Contract No.
1054113

Federal Project Number:
TPF-5(479)

PROJECT IS:

☐ Planning
☒ Research & Development

ANNUAL BUDGET: \$31,250 FY3
TOTAL BUDGET: \$123,085.93

PROJECT EXPENDITURES TO DATE: \$84,528.03.

WORK COMPLETED:

- Task 1. Project Management, Meetings, and Reporting
 - Held subcommittee meeting to provide update on project progress and early results
 - Meetings with subcontractor (UMN)
 - Submitted quarterly report
 - Request amendment to move funds from equipment to other tasks
- Task 3. Identify, Monitor, and Evaluate Vegetation Removal Sites
 - Analysis of UAV survey data
 - Created calculator that models and summarizes shade coverage of roadways
 - Compiled survey responses
 - UMN and Bolton & Menk completed most of the data analysis including review of photos collected for storm events which were used to compare pavement recovery time
 - Communicate with UMN project staff on data analysis and preliminary findings as needed
 - Prepared summary of findings for Aidan to report at Clear Roads semi-annual business meeting
- Task 4. Create Vegetation Management Guide
 - Submitted draft outline
 - Worked on Guide draft
 - Conducted additional information searches for Guide contents

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Task 1. Project Management, Meetings, and Reporting
 - Complete quarterly report
 - Budget and schedule management
 - Coordination with UMN
 - Hold progress meeting with Clear Roads subcommittee
- Task 3. Identify, Monitor, and Evaluate Vegetation Removal Sites
 - Coordinate with UMN on reviewing final findings
 - Incorporated survey findings
 - Use findings to inform contents of Vegetation Management Guide
- Task 4. Create Vegetation Management Guide
 - Continue work on draft Guide
 - Incorporate task 3 findings into recommendations
 - Provide draft of Guide to Committee for review (due 11/30/25)
 - Edit Vegetation Management Guide based on comments (due 1/31/26)
- Task 5. Draft and Final Report, Webinar
 - Continue work on final report
 - Incorporate summary of survey findings for other locations
 - Provide draft to Clear Roads Subcommittee for review (due 11/30/25)
 - Edit report based on comments (due 1/31/26)
 - Begin work on presentation for webinar to be conducted in January 2026

STATUS AND COMPLETION DATE:

The expected completion date is no later than January 31, 2026.