

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, 2024

PARTICIPATING AGENCIES: Minnesota Department of Transportation, Clear Roads Technical Advisory Committee, Bolton & Menk, and St. Anthony Falls Laboratory at the University of Minnesota.

PROJECT MANAGER:

Hafiz Munir / Tom Peters

LEAD AGENCY: MnDOT

PRINCIPAL INVESTIGATOR:

Carolyn Dindorf, Bolton & Menk

SP&R PROJECT NO:

MnDOT Contract No.
1054113

Federal Project Number:
TPF-5(353 or 479)

PROJECT IS:

☐ Planning
☒ Research & Development

ANNUAL BUDGET: \$37,868.71 (FY2)
estimated budget

TOTAL (PROJECT) BUDGET:
\$123,085.93

PROJECT EXPENDITURES TO DATE: \$12,103.87 through
8/30/24.

WORK COMPLETED:

- Task 1. Project Management, Meetings, and Reporting
 - TAC meeting, meetings with subcontractor, submitted quarterly report
- Task 2. Literature Search
 - Approved by TAC at the meeting.
- Task 3. Identify, Monitor, and Evaluate Vegetation Removal Sites
 - We are finalizing monitoring equipment decisions.
 - The University of MN, SAFL is testing the monitoring equipment we have.
 - Continued site scoping work and identified final options
 - Submitted site options for TAC review.
 - Developed survey questions to gather data on vegetation removal sites and problem shaded areas and sent out for TAC review.
 - Final survey was sent out to Clear Roads contacts, some adjustments were made to questions
 - Collected and reviewed responses
 - Provided details on top monitoring sit locations to TAC via email for review.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Task 1. Project Management, Meetings, and Reporting
 - Complete third quarter report
 - Budget and schedule management
 - Possible TAC meeting to provide update
- Task 2. Literature Search
 - This task has been completed
- Task 3. Identify, Monitor, and Evaluate Vegetation Removal Sites
 - Purchase any additional equipment and installation supplies needed.
 - Continue to test equipment and verify set up options for radiometer.
 - Apply for county right-of-way permit for equipment installation
 - Install equipment and begin monitoring
 - Periodically access data and ensure equipment is operating
 - Check equipment on-site and change batteries approximately monthly
 - Continue to accept survey responses of sites for desktop analysis

STATUS AND COMPLETION DATE:

A request was submitted to extend the time for completion of the literature review. All other tasks are on schedule. The expected completion date is no later than January 31, 2026.