# State Planning and Research Program
# Quarterly Report

**PROJECT TITLE**: ***Measuring the Efficiencies of Tow Plows and Wing Plows***

**OBJECTIVES**: First, the research will develop a strong practitioner-based understanding of real-world life cycle costs, benefits, and efficiencies of tow plows and wing plows, including maintenance, operational, and storage issues. Second, the research will develop tools for DOT decision-making and procurement, including a Decisions Support Tool and a Best Practices Guide, which will be helpful in procurement decisions and in actual use of such plows.

**PERIOD COVERED**: July 1, 2020 – September 30, 2020

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

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| **PROJECT MANAGER**:<br>Debbie Sinclair / Tom Peters<br><br>**LEAD AGENCY**: MnDOT<br><br>**PRINCIPAL INVESTIGATOR**:<br>Ty Lasky, UC-Davis | **SP&R PROJECT NO**:<br>MnDOT Contract No. 1034818<br><br>Federal Project Number:<br>TPF-5(353) | PROJECT IS:<br><br>____ Planning<br>__X__ Research & Development |
| **ANNUAL BUDGET**: $87,013 (Proj Yr 1)<br>(Total Project Budget): $124,980 | **PROJECT EXPENDITURES TO DATE**: $32,053 | |

**WORK COMPLETED:**

- AHMCT completed the Measuring the Efficiency of Tow plow and Wing Plows survey process.
- The survey responses were collected and AHMCT created a summary of survey results.
- Task 3 interim report (Recommendations and Test Plan) is in internal review by AHMCT and ready for submission to committee for review in early October 2020.

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

- Complete draft Task 3 interim report (Recommendations and Test Plan), submit to committee for review.
- Complete Task 4, the development of computer simulations to assess the efficiency of plow configurations and roadway types/geometries based on the analytical model developed in Task 3.
- Begin Task 5, the peer review of simulation results and work to resolve any concerns identified during the peer review process.

**STATUS AND COMPLETION DATE**:

- On schedule, expected project completion July 31, 2021. The review of the draft literature survey delayed the project. We accelerated Task 3 to get the project nearly back on the contracted schedule.