Clear Roads Phase II TPF-5(353)

Focuses on advancing winter highway operations nationally through practical, practice-ready research related to materials, equipment, and methods.

WHAT IS THE NEED?

Effective snow and ice removal is essential for keeping California Department of Transportation (Caltrans) roadways open and safe for the traveling public. Also, snow removal operations can be resource intensive for Caltrans.

This Clear Roads pooled fund will focus on advancing winter highway operations nationally through practical, practice-ready research related to materials, equipment, and methods. State departments of transportation are aggressively pursuing new technologies, practices, tools, and programs to improve winter highway operations and safety while maintaining fiscal responsibility.

WHAT ARE WE DOING?

The Clear Roads Pooled Fund project began in 2004 with a focus on real world testing of winter maintenance materials, methods, and equipment. During its twelve years of funding and overseeing research projects, it has grown to include 33-member states funding three to ten research projects annually.

The group’s latest projects and partnership initiatives have included a strong emphasis on implementing research results and sharing successful practices among agencies.

The Clear Roads Pooled Fund provides the critical funding and structure needed to evaluate these new tools and practices in both lab and field settings, to develop industry standards and performance measures, conduct cost-benefit analyses, and develop and evaluate new designs and practices that further
improve winter highway safety and minimize environmental impacts.

This project responds to research and technology transfer needs not currently met by other pooled fund projects. Existing partners make every effort to coordinate with other agencies to avoid duplication of efforts and to encourage implementation of results.

This new phase of Clear Roads Pooled Fund will address both operational and management research needs, investigating the most effective tools and practices for clearing snow and ice and for managing program resources, budgets and performance measures. It will also include an even stronger emphasis on promoting the use of the research results in the field.

The project will provide expanded support for implementation and technology transfer through the development of user manuals, training modules, peer exchanges, and quick turnaround syntheses of the most effective state practices from around the country. This new phase will also include expanded collaboration with other research organizations focused on winter maintenance (such as the Aurora Pooled Fund) to further leverage the research funding investment.

WHAT IS OUR GOAL?

The goal of this pooled fund research is to advance winter highway operations nationally through practical, practice-ready research related to materials, equipment and methods.

WHAT IS THE BENEFIT?

This research will help benefit Caltrans by having direct access to all the investigations done by the Clear Roads pooled fund. These investigations include research into new equipment and materials that help with the snow clearing operations.

Caltrans is also able to submit research projects that would directly benefit the department, as well as benefit from other research projects that are submitted by the other member states.

WHAT IS THE PROGRESS TO DATE?

Below are some of the current Clear Roads projects being investigated as of June 2019:

- A Test Bed Software to Qualify Plug and Play Technology
- Syntheses of Material Application Methodologies for Winter Operations
- Standards and Guidance for Using Mobile Sensor Technology to Assess Winter Road Conditions
- Weather Event Reconstruction and Analysis Tool
- Integration of Advanced Technologies and Winter Operations Decisions
- Standard Specifications for Plow Blades with Carbide Inserts
- Aftermarket Cameras in Winter Maintenance Vehicles

For additional information please contact the Task Manager.