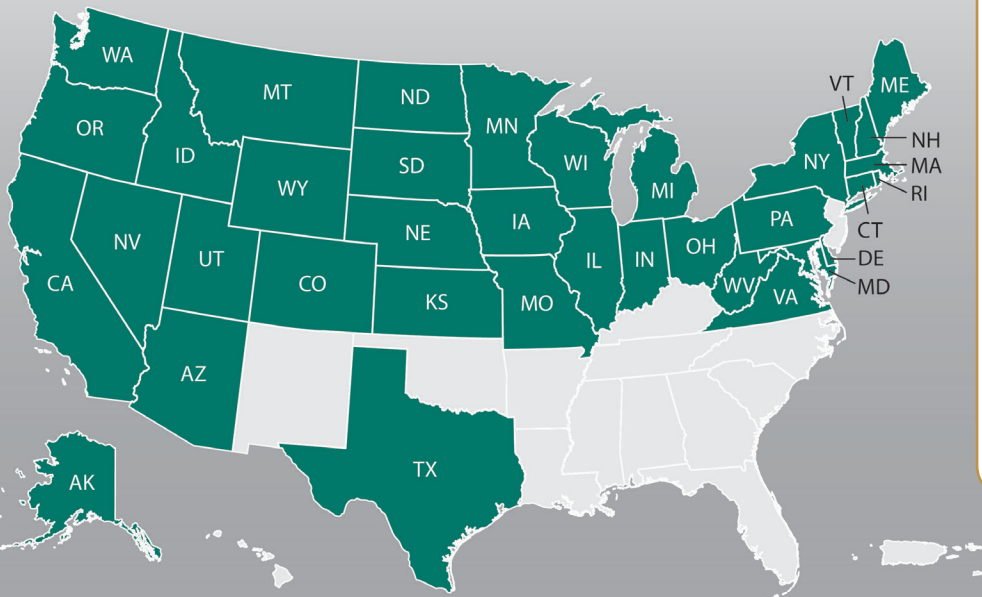




TPF Excellence Awards

TPF-5(353) Clear Roads Winter Maintenance Research
Minnesota Department of Transportation (DOT)

2024
Recipient



There is power in working together. If every agency uses the qualified-products list (QPL), manufacturers know what requirements they have to meet, and it makes the entire process... easier and less expensive for everyone.

—Doug McBroom, Montana DOT

Source: FHWA.
Map of Clear Roads Winter Maintenance Research State DOT partners.

For more than 45 years, the Federal Highway Administration’s (FHWA) Transportation Pooled Fund (TPF) Program has enabled State DOTs and other public and private entities to collaboratively conduct cutting-edge transportation research. Through the TPF Program, participants can pool funds and expertise to develop innovative solutions at a lower cost while extending the reach and impact of their research.

FHWA has partnered with the American Association of State Highway and Transportation Officials (AASHTO) to administer the biennial TPF Excellence Awards, which recognize outstanding TPF studies that have made significant impacts toward advancing national research efforts in the areas of safety, economic growth, equity, and/or transformative climate solutions. To highlight the importance of meaningful collaboration and partnership in transportation

research, the TPF Excellence Awards will recognize two exemplary TPF studies every 2 years.

FHWA and AASHTO are proud to announce that the Minnesota DOT’s Clear Roads Winter Maintenance Research (Clear Roads) TPF study is one of the winners of the inaugural 2024 TPF Excellence Awards.⁽¹⁾ The Clear Roads study was selected from a competitive field of 11 applicants for its extensive collaboration with its many partners and the broad adoption of its research solutions.



Project Description

The Clear Roads Winter Maintenance Research TPF study is a national research consortium that evaluates materials, equipment, and methods to support State DOT winter maintenance professionals (figure 1).⁽¹⁾ Launched in 2004, the study has grown to include 39 member agencies and leverages \$975,000 in collective research funding annually. Project activities include developing specifications, training, and recommendations as well as studying and promoting innovative techniques and technologies. The study has also examined technologies and developed training programs for improving State DOTs’ winter operation efficacy and safety. The Clear Roads TPF study has

More States are realizing that Clear Roads’ work is offering solutions to day-to-day problems...States are interested in becoming part of the decisionmaking process for identifying research needs.

–Lee Smithson, Iowa DOT

advanced the national state of the practice through updated guidance, training programs requested by more than 1,145 agencies, and more than 86 research products (figure 2). Finally, the study’s focus on safe, environmentally conscious snow clearing practices has contributed to two U.S. Department of Transportation strategic goals: advancing safety and sustainability.⁽²⁾

Partnership

The Clear Roads study benefits significantly from its partnerships. By pooling resources, agencies can conduct more extensive studies across a greater range of conditions than could be done by a single agency. For example, many State DOTs maintain their own QPL for snow removal equipment, but small agencies often lack the resources to test specific products. Clear Roads’ QPL levels the playing field by curating a universal list of products that members have reviewed and tested, saving time and energy for agencies of all sizes.

Impact on the Transportation Industry

Clear Roads has improved deicer practices nationwide. Through research and testing, the study helped to identify best practices for applying deicer to keep salt on roadways and out of the environment.⁽¹⁾



© Minnesota DOT.
Figure 1. Snow trucks in action on a highway.



Figure 2. The Clear Roads study addressed best practices for winter maintenance.

© Minnesota DOT.

After implementing this best practice, Maryland DOT noted it had stopped receiving many well contamination claims, saving more than \$90 million over the last nine winter seasons.

Similarly, after implementing corrosion prevention-related deicer best practices, West Virginia DOT noted a dramatic reduction in corrosion damage and repairs.

The study also created free training available to any requesting entity, and Clear Roads technology transfer is used by DOTs, private-sector companies, and commercial driver’s license training providers.

Clear Roads continues to pave the way for a more collaborative,

winter-resilient transportation network in the United States. Clear Roads’ various findings have been implemented across the country: 70 percent of study members have implemented findings from Clear Roads’ material application projects, and 64 percent of members have implemented the findings from the Clear Roads State Winter Maintenance Data and Statistics Map.⁽¹⁾

 **Give Innovation the Green Light**

The TPF Program paves the way for collaboration and innovation. Clear Roads is an excellent example of a region coming together to address a common problem: clearing snow and ice from roads in the winter.

The TPF Program includes a broad range of transportation research areas, such as pavements, bridges, design, safety, administration, environment, security, and maintenance. If you want to get involved with innovative research projects advancing transportation, consider joining one of the TPF Program’s many open studies.⁽³⁾ If you have a novel research idea, consider starting a TPF study today! Your participation fuels the TPF Program, and your region can lead the Nation by creating transportation solutions for tomorrow!

Learn more at the TPF Program website, www.pooledfund.org.⁽⁴⁾



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Make an Impact Through a TPF Study!

The TPF Program is a great resource to combine limited funds to address important transportation issues. Learn more about initiating a TPF study and browse the list of open solicitations on the TPF website at <https://www.pooledfund.org/>.

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