

NOVEMBER 2023



ABOUT THIS PROJECT

PROJECT NAME: Standardized Framework for Winter Weather Road Condition Indices

PROJECT NUMBER: TPF-5(435)

PROJECT FUNDING PROGRAM: Aurora Pooled Fund, a 19-state collaborative research effort

PROJECTED END DATE: April 2025

PROJECT CHAMPION:
Tina Greenfield, Iowa DOT
tina.greenfield@iowadot.us

PROJECT MANAGER:
Khyle Clute, Iowa DOT
khyle.clute@iowadot.us

PRINCIPAL INVESTIGATOR:
Iowa State University

RESEARCH IN PROGRESS

Standardizing communication on road conditions to improve safety

State agencies protect travelers by providing up-to-date information on weather and road conditions. Climates vary significantly across the country, so each state department of transportation (DOT) analyzes, categorizes, and communicates weather conditions and safety priorities for its region. Currently there is no standardized guideline or index that connects these different state weather information systems. This gap raises concerns about driver safety and the response to weather events that affect multiple states.

As lead state of the Aurora pooled fund program, Iowa DOT is investigating a uniform framework for indexing and communicating weather conditions to travelers. For this project, Aurora's 19 partnering

states will share their current approaches to analyzing data and communicating weather conditions in understandable terms.

"Although each state has its own way of describing road conditions, drivers may not realize when they have crossed over a boundary into a different system," said Tina Greenfield, Iowa DOT's road weather information system coordinator. "We hope to understand what other DOTs are using so we can identify options for creating one system that can work for everyone."

In addition to analyzing the approaches from various states and assessing the feasibility of a regional or nationwide framework, the research will address weather data collection and sharing. This could help states to augment their own

weather indexing models without the need for resource-intensive development.

"This project not only gives us the opportunity to improve the delivery of critical travel information," Greenfield said, "but also to explore how states can share their best practices. Since weather does not stop at the state line, we want to provide clear information that keeps all travelers safe no matter where they drive."

The research is expected to conclude in April 2025.

To learn more about this project and subscribe to updates, visit [Idea #3499](#).

IOWA DOT RESEARCH
iowadot.gov/research
ideas.iowadot.gov