

Extreme Weather and Climate Services Roadshow – Driftless Region

An initiative of the [Rural Partnerships Institute](#) at the University of Wisconsin-Madison

The Extreme Weather and Climate Services Roadshow – Driftless Region was held in West Salem, Wisconsin, as part of a statewide outreach effort led by the Rural Partnerships Institute (RPI) in partnership with the Wisconsin State Climatology Office (SCO) and Wisconet. The Roadshow series is designed to build rural capacity around extreme weather preparedness, share available climate and weather services, and gather community input to guide future research, planning, and outreach.

Approximately 15 participants attended the Driftless Roadshow on a snowy evening, representing county and municipal government, emergency management, land conservation, Extension, nonprofit organizations, and community advocates working closely with vulnerable populations. The Driftless event emphasized both acute hazards and longer-term planning challenges facing small and rural communities.

Presentation Summary

Rural Partnerships Institute (RPI)

Jackson Parr, Climate Hazards Planning Educator representing the Rural Partnerships Institute, described the project that supports the Roadshow series, including other initiatives focused on rural extreme weather preparedness. RPI is helping develop data tools to support agricultural management decisions, hazard mitigation planning, landscape interventions for flood resilience.

The project also provides funding for youth to participate in climate research and microclimate monitoring programs across the state and methods to evaluate extreme temperature impacts on youth to guide programmatic decision making for schools and youth organizations. These initiatives emphasize the unique impact of extreme weather on rural communities, and seek to improve education and awareness to better prepare these regions for amplified weather extremes.

Wisconsin State Climatology Office (SCO)

Amanda Latham and Josh Bendorf, Climate Outreach Specialists with the Wisconsin State Climatology Office (SCO) provided an overview of its mission to offer climate services that help Wisconsinites use weather and climate information most effectively. Paul Buchmann, Post-Doctoral Researcher, also presented on his research topics, including an analysis of snowfall trends in Wisconsin and evaluating mitigation strategies for flood-prone watersheds. Presenters highlighted available products such as county climate profiles, recent climate condition summaries, historic climate datasets dating back to the 1800s, and applied research driven by community needs.

A focal point of the presentation was local climate trends for La Crosse County. Data shared during the Roadshow showed that average annual temperatures in La Crosse County have increased by approximately 1°F every 20 years, with warming most pronounced during winter months and less pronounced in summer. Six of the ten warmest years on record for the county have occurred since 2000.

Precipitation trends show that annual precipitation has increased by more than one inch per decade, with winter experiencing the largest percentage increase since the early 1950s. Seven of the ten wettest years on record have occurred since 2000. These observed trends are already influencing flood risk, infrastructure stress, and ecosystem health across the region.

Future climate projections for mid-century (2041–2060), based on Wisconsin Initiative on Climate Change Impacts (WICCI) scenarios, indicate continued warming and hydrologic change. Projections include an increase in average annual temperatures of approximately 4°F, fewer nights below 0°F, more nights remaining above 70°F, and a substantial increase in days exceeding 90°F. Annual precipitation is projected to increase by approximately 5%, with winter and spring experiencing the greatest increases, along with more frequent heavy precipitation events.

Wisconet – Wisconsin’s Environmental Mesonet

Wisconet staff presented on Wisconsin’s expanding environmental monitoring network, which delivers high-resolution, near-real-time data on precipitation, temperature, wind speed and direction, soil moisture, humidity, and other variables at five-minute intervals. The presentation emphasized how Wisconet data support emergency management, flood forecasting, transportation planning, utilities, agriculture, education, and outdoor worker safety.

Participants expressed interest in Wisconet station siting, long-term maintenance, future expansion toward a statewide network of approximately 120 stations, and new web-based decision-support tools. Questions were also raised about data accessibility, use by farmers and emergency managers, and potential future development of mobile-friendly tools.

Breakout Groups and Participant Insights

The Roadshow featured breakout questions where participants could share their perspectives and experiences on extreme weather in the Driftless Region. They discussed the impact of weather and climate on their life and work, the extreme weather events that have had the greatest impact on their community, where they go to for weather and climate information, and what weather and climate information they wish was more readily available. Breakout discussions were praised by participants as the most valuable component of the event, providing an opportunity for interactive learning and hearing diverse local perspectives.



Impacts and Events

Participants identified flooding along the Mississippi River, derechos and straight-line wind events, ice storms, prolonged power outages, and extreme heat as some of the most impactful events of the past decade. Several attendees noted changes in river health, including warmer water temperatures, increased pollution following heavy rain events, and beach closures that limit recreation.

At the community level, participants discussed infrastructure stress from increasingly intense rainfall, accelerated damage from freeze-thaw cycles, urban heat island effects in smaller communities, and the challenges associated with flood recovery and buyouts in areas with limited housing alternatives. Public facilities such as libraries were noted as increasingly important warming and cooling centers, particularly for vulnerable populations.

Opportunities for Research

Breakout discussions highlighted several priority areas for future research and tool development in the Driftless Region. These include improved mapping and analysis of vulnerable populations, particularly aging residents, households without air conditioning, mobile home parks, and unhoused populations.

Participants also emphasized the need for research on extreme heat impacts on energy systems, clearer worker safety thresholds tied to weather and environmental conditions, and tools that translate climate data into actionable guidance for planners and emergency managers. Additional opportunities include youth and K-12 engagement in weather and climate monitoring, and further investigation into how warmer winters may be contributing to wetter conditions and changing flood risk across the region.

Other Events

RPI, the SCO, and Wisconet host Extreme Weather and Climate Services Roadshows across the state to better understand the needs in different regions of Wisconsin. They include:

- **Northern Wisconsin:** Oneida County, December 2nd, 2025 ([Read Event Summary](#))
- **Central Sands Region:** Wisconsin Rapids, February 4th, 2026 ([Download Event Flyer](#))

If you would like to bring a Roadshow to your community, contact Jackson Parr, Climate Hazards Planning Educator at the University of Wisconsin-Madison Division of Extension, at jgparr@wisc.edu.