

# COMMUNITY RESILIENCE TEAM

The need to build greater resiliency in Illinois communities was brought into sharp focus in June, 2017 at a scientific summit hosted by the Illinois Department of Natural Resources and the Prairie Research Institute (PRI). This gathering of academic researchers, state agencies, non-governmental organizations, businesses, and community leaders reviewed the most current scientific research on climate variability and future climate change in Illinois.

Experts found that climate variability and change will likely impact Illinois’ residents, infrastructure, and economy in the future. Rising temperatures are expected to increase human health risks and energy demands. Agriculture is expected to be impacted through increased stress on crops from warmer temperatures and a possibility of longer dry spells between rainfall events. Water supplies and demand, as well as water quality, are at risk. Flooding is expected to increase, along with anticipated impacts to insects and wildlife across the state.

In preparing for community resiliency, the risks, mitigation strategies, and implementation approach will be different for every Illinois locale. There is a need for an integrated team of professional advisors to assist local authorities in identifying the relevant risks, resources and issues they face as they work toward resiliency.

As a result, a comprehensive effort is called for to develop a “resiliency team” involving all stakeholders to promote the free flow of information, broad cooperation, and readiness as new research on climate resiliency develops. New or unforeseen hazards pose risks to the healthy function of communities. Different communities have different sensitivity to those hazards due to many factors (social, economic, environmental, infrastructure).

The Community Resiliency Team will initially engage with communities in their mitigation planning and bring into the discussion the expertise within PRI and the University of Illinois to help develop strategies to mitigate the causes and reduce their impacts on critical infrastructure, economic livelihood, and human health.

Careful planning based on current science and the best available technology will be needed to protect community infrastructure and natural ecosystems as well as human health. ISWS and its sister surveys in the Prairie Research Institute are highly knowledgeable about and connected to pertinent state agencies, requirements and resources. The Community Resilience Team will provide a bridge between communities and the expertise at PRI and the University.

ISWS and PRI can establish a leading role in providing technical assistance to Illinois communities to build resilience, which in turn would generate opportunities to demonstrate economic benefits resulting from our contribution.

Historic weather data shows that extreme events such as flash floods, heat waves, and droughts are on the rise across the Midwest U.S. and Illinois.

Current infrastructure, ecosystems, communities, and municipalities are not prepared for today’s weather events, nor the types of weather events expected in the future.

More frequent and extreme weather events is one aspect of climate change which highlights the need for communities to come together to mobilize their resources for anticipating, mitigating and recovering from hazards of many kinds.

## FOCUS AREAS

- Foundational Research
- Emerging Issues**
- HEAL Laboratory
- Community/Citizen Outreach
- State Agency Engagement

## APPLIED RESEARCH—EMERGING ISSUES

### LOCAL IMPACTS

Using data from the U.S. National Climate Assessment, the U.S. Environmental Protection Agency listed some climate change impacts/issues which are likely to occur more frequently in the future in Illinois and the Midwest:

- Heat waves
- Algal blooms
- Water quality
- Water supply
- Agriculture (positive and negative impacts)
- Increasing levels of ground-level ozone and particulate matter in the atmosphere
- Groundwater supply
- Storm water runoff
- Flooding
- Land use
- Wildlife impacts
- Habitat loss
- Erosion and sedimentation

**For more information,  
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