

# **MES**NET

Indiana State Climate Office Indiana Geological & Water Survey



Facilitating better weather safety, water management, and economic prosperity across Indiana

#### **MESONET**

A spatially-dense network of environmental monitoring infrastructure that provides high-quality, frequent weather, long-term water, and soil observations.

#### **PROBLEM**

Weather conditions can change rapidly over short temporal and spatial scales, which are best detected by at least one monitoring station per county. Hazardous weather can increase vulnerability due to profound impacts on transportation, business, and personal safety. Indiana currently has a limited network, raising concerns about inadequate environmental monitoring across the state.

# **CURRENT**

The Indiana Mesonet includes the Purdue Mesonet (Indiana State Climate Office) and Indiana Water Balance Network (Indiana Geological & Water Survey). It currently reflects only about a quarter of Indiana's 92 counties. Limited funding currently impedes the maintenance and expansion of the Indiana Mesonet and its partnerships.

# **SOLUTION**

Sustainable funding to maintain and expand the Indiana Mesonet. This support will ensure reliable access to high-quality environmental monitoring and decision support tools that serve multiple agencies across ALL Indiana counties.



## **BENEFITS**

#### **ECONOMIC PROSPERITY**



- Decision tools that add economic value
- Support organizational efficiency
- Data for innovation, growth, research

#### **WEATHER HAZARDS & IMPACTS**



- Facilitate protection of life and property
- Dense data for forecasts, climate record
- Better analysis of precipitation extremes

# AGRICULTURAL PRODUCTIVITY



- Optimize pesticide application timing
- Improve irrigation scheduling
- Aid crop and livestock health monitoring

## **INFRASTRUCTURAL DEMAND**



- Enhance water supply monitoring
- Aid energy production and distribution
- Improve knowledge of road conditions

# **COMMUNITY INVOLVEMENT**



- Expand education and research
- Guide community planning for extremes
- Perform impact analysis after disasters

#### **PUBLIC HEALTH**



- Facilitate protection from heat illnesses
- Aid hazmat planning and response
- Assist food and water security decisions

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