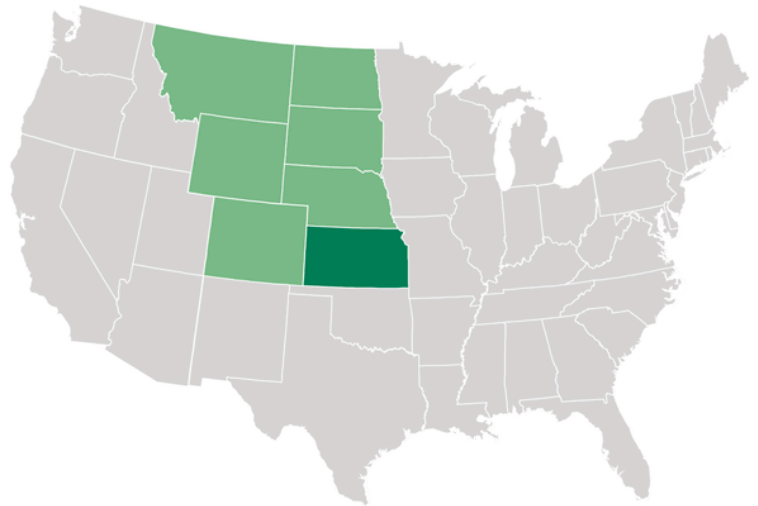




## North Central CASC Consortium Institutions

**Host: University of Colorado Boulder**

- Colorado State University
- Great Plains Tribal Water Alliance
- South Dakota State University
- The Nature Conservancy
- University of Montana
- University of Wyoming



## Key Science Topics



Fish & Wildlife



Grasslands & Plains



Freshwater



Drought



Science Tools  
for Managers

## Our Work in Kansas

**45+**  
Projects

since  
**2011**

## Learn More

### North Central CASC



[nccasc.colorado.edu](http://nccasc.colorado.edu)



[nccasc@colorado.edu](mailto:nccasc@colorado.edu)

### CASC Network



[usgs.gov/casc](http://usgs.gov/casc)



[casc@usgs.gov](mailto:casc@usgs.gov)



## Climate Impacts on Grassland Ecosystems

*Grasslands in the Great Plains are important ecosystems that support local economies, tribal communities, livestock grazing, and diverse plant and animal communities. Changing climate conditions impact how people and animals live on and interact with grasslands and can bring more frequent droughts, fires, and invasive species that make managing these landscapes challenging.*

**WHAT:** The North Central CASC is synthesizing management questions and information needs of stakeholders related to grasslands, assessing the state-of-the-science on climate variability and change in the region, and identifying how grassland ecosystems are responding to climate change and its impacts, including changing fire regimes, the spread of invasive species, and habitat fragmentation.

**IMPACT:** With a focus on communities such as tribal resource managers, the results of this project will provide natural resource managers with information on best-practice management decisions for grassland ecosystems in a changing climate.



## Protecting Vulnerable Grassland Birds from Climate Change

*America's prairies, home to beloved birds such as meadowlarks and mallards, are under threat from human development and climate change. Climate change occurs quickly in flat, low-lying areas, meaning that heat waves, droughts, and extreme weather events have become the new norm for many prairies in the central U.S. This also means that grassland birds, which rely on grasslands for habitat, are particularly vulnerable to climate change.*

**WHAT:** The North Central CASC is synthesizing the available information on the vulnerability of grassland ecosystems and grassland-dependent migratory birds to climate change across the Central Flyway.

**RESULTS:** How conditions are changing, and how fast, varies dramatically across the region. While some parts of the Central Flyway are experiencing a mega-drought, others are facing unprecedented flooding, record-breaking heat, or strong winter storms.

**IMPACT:** To help cut through the complexity of climate impacts, the team is developing a Grassland Adaptation Menu of conservation strategies for grassland birds. The menu has already been implemented by The Nature Conservancy to plan new strategies for their properties in the region.