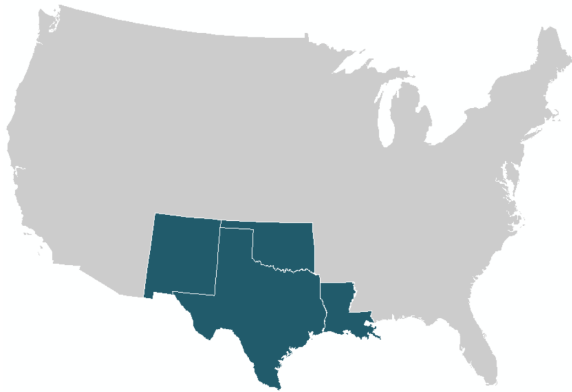# NEW MEXICO

New Mexico falls within the domain of the South Central Climate Adaptation Science Center (SC CASC)

South Central CASC Consortium Institutions

Host: University of Oklahoma

Consortium:

Chickasaw Nation	Oklahoma State University
Choctaw Nation of Oklahoma	Texas Tech University
Louisiana State University	University of New Mexico

OUR WORK IN NEW MEXICO

37+
Projects

since **2012**

Key Science Topics

Wildlife & Plants

Freshwater

Forests

Fire

Science Tools for Managers

PREDICTING WATER SUPPLY FOR THE RIO GRANDE

The iconic Rio Grande supplies about two-thirds of the agricultural irrigation needs of central and southern New Mexico and provides drinking water for Santa Fe and other cities.

WHAT:
Climate projections show that streamflow in the Rio Grande will decrease by one-third and become less predictable over the current century.

The South Central CASC is generating models to better understand how changing snowpack affects streamflow patterns and, as a result, water supply.

IMPACT:
Results will be used to improve water supply outlooks for the Rio Grande. Water supply outlooks are a critical tool for water managers, who are making decisions about reservoir operations, allocations of water for irrigation, power generation, and water supply to communities.

MAPPING CRUCIAL WILDLIFE HABITAT

Wildlife populations are shifting their ranges in response to changing climate, potentially imperiling some species and presenting challenges for wildlife managers and others who are making decisions about wildlife stewardship.

WHAT:
The South Central CASC examined the effect of shifting climate conditions on 20 species of conservation concern.

RESULTS:
19 of the 20 species examined will have their ranges significantly affected by changing climate. Quails—a favorite among New Mexico's hunters and birdwatchers—face particularly adverse impacts, losing habitat under almost all climate scenarios.

IMPACT:
Maps evaluating patterns of loss of suitable habitat were incorporated into the publicly accessible New Mexico Crucial Habitat Assessment Tool, which is being used by state wildlife managers for conservation planning.