



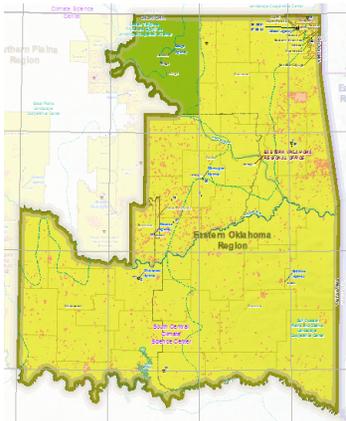
EASTERN OKLAHOMA REGION

Since 2011, Eastern Oklahoma Region climate training and adaptation efforts have been facilitated through Tribal membership in the South Central Climate Science Center (SC CSC), building on a decade of federal U.S. Geological Survey Tribal water management support.

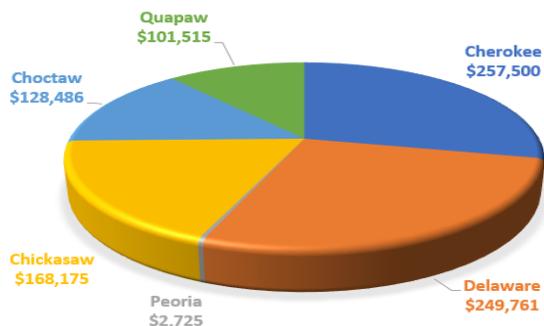


CLIMATE IMPACTS

- Wildfire Hazard Mitigation
- Drought and Heat Waves
- Extreme Weather Events
- Reduction in Aquatic Species
- Loss of Key Plant Species
- Water and Food Security
- Loss of Key Plant Species



EASTERN OKLAHOMA TRIBAL AWARDS



FUNDED STRATEGIES

The SC CSC employs staff from both the Chickasaw and the Choctaw Nations and Tribal interns, serving as a model for BIA TCRP Regional Tribal Liaisons being deployed to other CSCs throughout Indian Country. Currently, liaisons train not only Eastern OK Tribes, but Southern Plains and Southwestern Tribes in NM to build climate awareness, planning and analysis capabilities - <http://bit.ly/2p60jvq>

The SC CSC project, Listening to the Rain, shares Tribal members observations, understanding of and responses to climate change <https://vimeo.com/91082165>

With broad academic, federal and inter-tribal support, the SC CSC also enables Tribes to analyze surface water and groundwater supply and water quality to develop Tribal water plans. BIA TCRP funding assists the Choctaw and Chickasaw Nations to leverage these efforts to develop drought vulnerability assessments.

The Delaware Tribe, Delaware Nation, and Shawnee Tribe recently received BIA TCRP funding to develop a joint climate adaptation plan focused on environmental resources. A Quapaw Tribe youth intern award will support development of a Comprehensive Agricultural Climate Control Mitigation Plan.

The Cherokee Nation is developing wind and solar energy projects, including solar-powered vehicle charging stations and heat pumps. Cherokee Nation Environmental Programs (CNEP) supports Tribes beyond its boundaries with air monitoring, home energy audits, and river cane reestablishment on both public and private lands for traditional basket weaving with Choctaw Nation and others. They also received BIA TCRP funding to develop a Climate Adaptation Plan.

EXAMPLE PROJECTS

Surface and Groundwater Modeling

Tribe in the area have been trained in monitoring water resources to be prepared and plan for future droughts

Renewable Energy Projects

The Cherokee Nation to challenge climate change is developing wind and solar energy projects

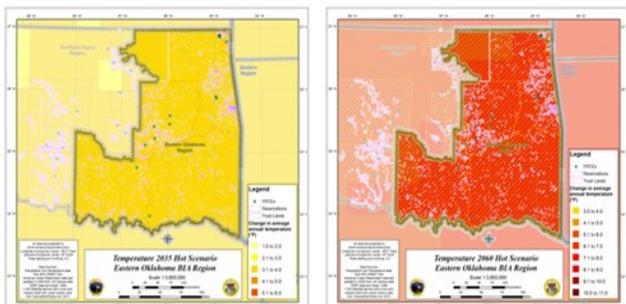


CLIMATE SCENARIOS

2035 and 2060 CMIP5 Climate Projections

From EPA CREAT Projection Map - <http://arcg.is/2cEzv2p>

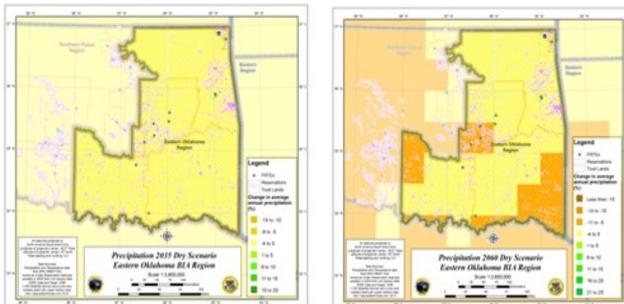
Temperature Scenarios



Hot 2035

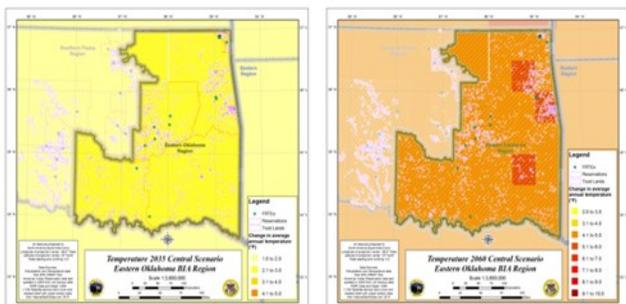
Hot 2060

Precipitation Scenarios



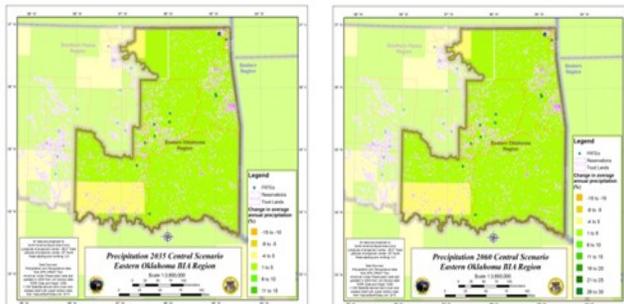
Dry 2035

Dry 2060



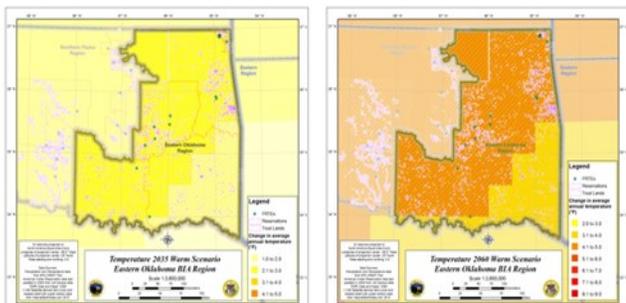
Central 2035

Central 2060



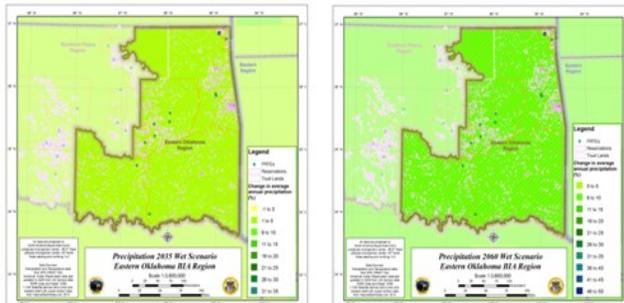
Central 2035

Central 2060



Warm 2035

Warm 2060



Wet 2035

Wet 2060

DATA ANALYSIS EXAMPLE

Fire Historic Data

http://sfrs.wr.usgs.gov/Fresc_ScienceData/

The USGS has compiled a fire historical data throughout the western US from 1870-2007 to compare to new fire regimes to better determine unusual trends to address.

Visit the Fires Science Exchange Network - <http://www.firescience.gov> to obtain information from local experts and scientists working in your area, attend training, share data, and plan and test management strategies together with others facing similar concerns. NASA North American Forest Dynamics consortia is also creating new variation products - <https://go.nasa.gov/2p1TGMS>

