



NOAA Critical Thresholds for Extreme Weather Events

CASE STUDY

San Angelo, TX



The City of San Angelo is located in West Texas. Home to Angelo State University and the Goodfellow Air Force Base, this mid-size city has seen large population growth, nearly doubling its population since the 1960s. With this growth, the City has been challenged by sprawl and in the late 2000s began efforts to revitalize its downtown and increase density in its urban core. The City lies at the junction of the North and South Concho Rivers.

Population: 100,450

Primary Climate and Weather Related Concerns:
Riverine Flooding, Extreme Heat, Ice Storms, Wildfires

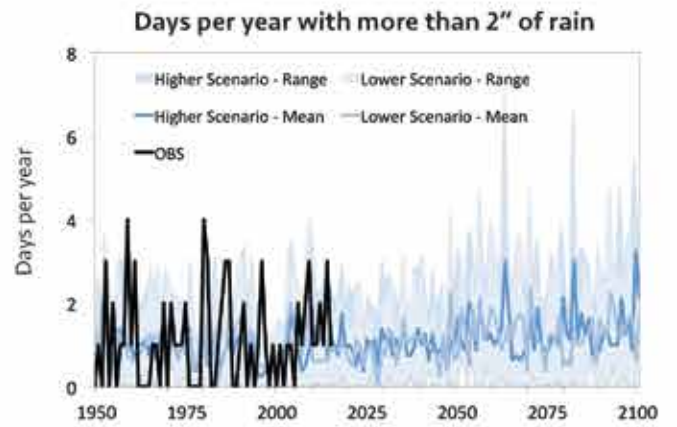
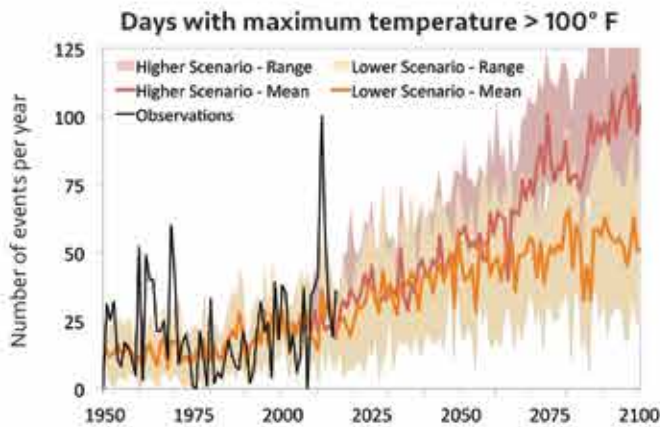
ACTION TO BUILD RESILIENCE

As a result of this project, the City purchased and installed a weather monitoring station near some recreational fields and a rainwater harvesting system at the Bosque Park in downtown San Angelo. The projects demonstrate City leadership on important issues like managing water in a region prone to both droughts and extreme precipitation events. It also creates a foundation for better understanding weather information for the region and sharing that information with the community to build climate and weather literacy.



CLIMATE PROJECTIONS

Project participants identified thresholds related to issues ranging from ice storms and wildfire to hot days and heavy precipitation events. The community knew that they had concerns related to heavy rainfall, but were surprised and concerned about how the increase in temperature could create more frequent or more intense periods of drought. Figures below show observations (OBS) and projections for the future with a lower climate change scenario (RCP 4.5 - Lower Scenario) and higher climate change scenario (RCP 8.5 Higher Scenario).



INSIGHTS

Focusing on addressing current weather-related concerns created a foundation for both taking action and discussing future climate. The participants' reaction to the projections for extreme heat in the region suggest that the identification of community based thresholds and discussion of planning for those impacts has some utility. Despite this, many of the participants were just interested in just "getting to work" rather than discussing the results of the thresholds modeling.

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