SCIPP RISA: Incorporating the WAS*IS Vision in Climate Services

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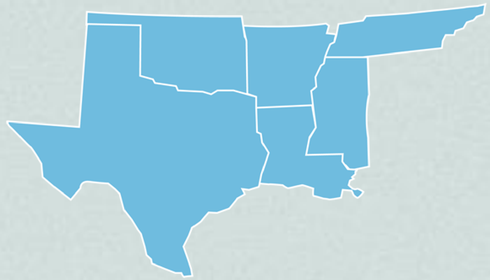
Introduction

The Southern Climate Impacts Planning Program (SCIPP) is a South Central United States focused climate hazards and research program whose mission is to increase the region's resiliency and level of preparedness for weather extremes now and in the future. SCIPP is one of 11 NOAA Regional Integrated Sciences and Assessment teams. SCIPP provides climate services to the region and operates on a framework that aligns with the WAS*IS vision by connecting the physical and social sciences and to users. SCIPP engages decision makers, assesses their needs and if appropriate, builds climate tools to help inform decision making. SCIPP works with local, state, tribal, and federal government and non-government stakeholders in several sectors including but not limited to water resources, agriculture, planning, environmental, and emergency management.



Region that is served by SCIPP.

Research Themes

1. **Water Resources:** How will climate change affect water resources within the region?
2. **Storm Hazards:** How will the frequency and/or intensity of storm hazards change under climate change scenarios?
3. **Drought:** How can communities, agricultural producers, and agencies be better integrated to improve drought monitoring and early preparedness?
4. **Vulnerability:** How can dialogue on hazards and climate change be improved to reduce key vulnerabilities in communities, coastal zones, and important economic sectors?
5. **Critical Thresholds:** What are the critical thresholds beyond which a community is incapable of adapting to extreme events or climate change?
6. **Hazard Planning:** How are climate impacts portrayed in hazards management and other types of community plans?
7. **Measuring Impacts:** How can we systematically measure and record impacts for variables that are difficult to quantify?

Methods of Engagement

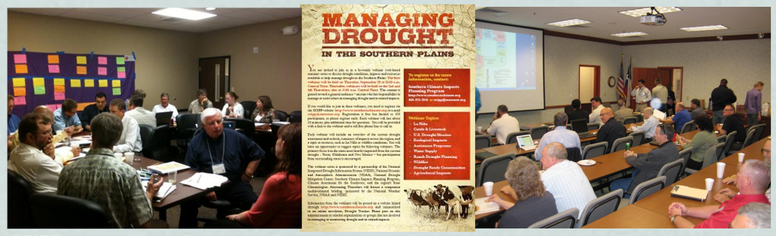
Formal and informal social science methods are used to engage stakeholders. Some of the formal methods that SCIPP uses includes interview and surveys. Informal methods include workshops, large group meetings, phone calls, webinars, and in-person forums.

Example Work

Below are some example research projects, assessments, and areas of engagement within which SCIPP works, to provide climate services in the south central United States.

Managing Drought in the Southern Plains

A drought of strong intensity and vast geographical extent has gripped areas of the South Central U.S. for several years. To respond, SCIPP has engaged decision makers in regional, state and local arenas in a conversation about drought using multiple efforts. The net effect of these efforts is that interaction between these arenas and between the academic and practitioner communities increased substantially.



SCIPP has communicated drought information through a state planning meeting, webinar series, outlook and assessment forums, and media engagement.

Assessing Needs in Oklahoma and Gulf Coast

Interviews were conducted in Oklahoma and along the Gulf Coast to determine the most significant climate-related issues that decision makers in these geographic areas are currently facing and anticipate they will face in the future, the spatial and temporal scales in which they make decisions, and their need for climate information, education, and decision-support tools.

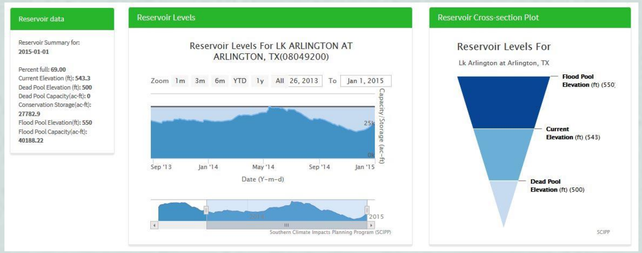
Climate Training for Native American Tribes

Two-day climate training workshops, including an introduction to a climate vulnerability assessment, were conducted in the fall of 2014 for Native American Tribes in Oklahoma and Texas. Prior SCIPP work revealed the need for climate education for tribal stakeholders, especially for those who work in their tribe's environmental department.

Photos from the workshop in Durant, OK.

Water Reservoir Visualization Tool

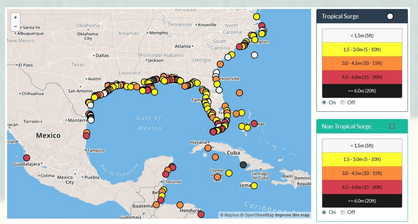
It was apparent during the 2011 drought that water resources information was sparse, distributed and inconsistent in the region. One way SCIPP is addressing this problem is by developing an integrated reservoir database, built upon the Applied Climate Information System (ACIS) framework, through NOAA's Southern Regional Climate Center (SRCC).



Example visualization of data for Lake Arlington in Texas on 2 January 2015.

SURGEDAT Storm Surge Database

SURGEDAT's comprehensive storm surge archive provides a unique opportunity to estimate coastal flooding frequencies. Data-driven statistical methods are used to estimate storm surge return levels, such as the height of the 100-year or 50-year storm surge, in locations along the U.S. Gulf and East Coasts, and the world.



Maximum storm surges along the U.S. Gulf and East Coasts.

SCIPP
A NOAA RISA TEAM

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National Drought Mitigation Center